ANTIMATERIEL RIFLES/HEAVY SNIPER RIFLES

Azerbaijani Antimateriel Rifles
Austrian Antimateriel Rifles
British Antimateriel Rifles
Chinese Antimateriel Rifles
Croatian Antimateriel Rifles
Czech Antimateriel Rifles
Finnish Antimateriel Rifles
German Antimateriel Rifles
Hungarian Antimateriel Rifles
International Antimateriel Rifles
Japanese Antimateriel Rifles
Polish Antimateriel Rifles
Russian Antimateriel Rifles
Slovenian Antimateriel Rifles
Swiss Antimateriel Rifles
Ukrainian Antimateriel Rifles
US Antimateriel Rifles A-L
US Antimateriel Rifles M-Z
Yugoslavian Antimaterial Rifles

MSN IST

Like most such rifles, the IST was designed for use against soft and light armor, aircraft, command and control equipment, etc. It can also be used against personnel, of course. The IST is designed to be used by a sniper and a spotter and to be operable in temperatures from -50 to +50 degrees Celsius and up to 97% humidity. It is a heavy rifle, though not unduly so, and uses the cartridge most common in Azerbaijan and its trading partners. The barrel is a heavy 1.1-meter barrel tipped with a large, beefy muzzle brake. Operation is by gas piston. The normal scope issued with the IST is the POSP 8x42WD scope. The operating parts are heavy, more akin to 20mm rifle parts than a 12.7mm rifle parts. Atop the receiver is a MIL-STD-1913 rail, and the stock has a recoil pad, has a raised cheekpiece, is adjustable for LOP, and angle of butt. The butt has a monopod which may be lowered and adjusted, and the bipod is adjustable for cant and height, but is otherwise light yet strong. The 14.5mm IST uses a unique recoil management (rumors have it that it is similar to the AN-94's BSSP system).When transported, the IST can be broken into two groups for transportation by sniper and spotter.

Weapon	Ammunition	Weight	Magazines	Price
IST	12.7mm Russian	16 kg	7	$11072
IST	14.5mm Russian	28 kg	5	$14340

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
IST (12.7mm)	SA	10	2-2-3	14	3	Nil	197
(With bipod)	SA	10	2-2-3	14	2	Nil	252
IST (14.5mm)	SA	11	2-2-3	16	3	Nil	240
(With Bipod)	SA	11	2-2-3	16	1	Nil	308

Steyr HS-50

Notes: This is a precision heavy-caliber sniper rifle. It is meant to be used for sniping, countersniping or antimateriel work, with its heavy cartridges. It was first exhibited in February 2004 at the SHOT show, and it is not known whether it has seen any combat testing. The HS-50 is a single-shot bolt-action rifle, relatively short in length with a large muzzle brake and with a MIL-STD-1913 rail above its receiver in order to use virtually any sort of optical device. There are no backup iron sights. The barrel is fluted for about one-half of its length. The rifle seen at the SHOT show was chambered for .50 Browning Machinegun, but the HS-50 can also be chambered for a new .460 cartridge that Steyr has developed specifically for this rifle. (Figures for the .460 Steyr version of this rifle are provisional.)

The new HS-50M1 version is a bolt-action repeating version of the HS-50. It is fed by a 5-round right-side-mounted magazine with the bolt handle and ejection port on the opposite side. The HS-50M1 also has a triple rail above its receiver instead of a single rail (the two extra rails are on either side of the receiver at an angle, and are shorter saddle rails). The stock has a thick rubber recoil pad with spacers for stock length adjustment, and the stock has an adjustable cheekpiece. The trigger is two-stage. The barrel is longer at 35.5 inches, and the entire rifle is nearly 5 feet long.

Twilight 2000 Notes: This weapon does not exist in the Twilight 2000 timeline.

Weapon	Ammunition	Weight	Magazines	Price
Steyr HS-50	.50 Browning Machinegun	12.4 kg	1 Internal	$4734
Steyr HS-50	.460 Steyr	11.43 kg	1 Internal	$4175
Steyr HS-50M1	.50 Browning Machinegun	14.52 kg	5	$8143
Steyr HS-50M1	.460 Steyr	13.83 kg	5	$6441

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
Steyr HS-50 (.50)	SS	9	2-3-4	9	3	Nil	142
With Bipod	SS	9	2-3-4	9	2	Nil	184
Steyr HS-50 (.460)	SS	8	1-2-3	9	3	Nil	156
With Bipod	SS	8	1-2-3	9	2	Nil	202
Steyr HS-50M1 (.50)	BA	9	2-3-4	12	3	Nil	160
With Bipod	BA	9	2-3-4	12	1	Nil	208
Steyr HS-50M1 (.460)	BA	9	1-2-3	12	3	Nil	188
With Bipod	BA	9	1-2-3	12	1	Nil	244

Steyr IWS-2000 Anti-Materiel Rifle

Notes: This is an Austrian-made heavy sniping rifle, designed to destroy enemy equipment at very long range. It also has some use against light vehicles. The IMR-2000 is normally equipped with a 10x telescopic sight and a recoil pad. Its normal ammunition is a 15.2mm SLAP round, in order to more easily penetrate and destroy materiel. The IWS-2000 can be broken into two groups for easier transport. Its massive muzzle brake also characterizes the IWS-2000. As of 2010, there have been no official sales of the IWS-2000, and it still listed as being in “advanced development.” However, rumors of experimentation with it by sniper and special operations units worldwide abound.

Twilight 2000 Notes: By 1998, it was well known that US and NATO special operations units were equipped with small numbers of the IWS-2000; in addition, the IWS-2000 was believed to have been used by the South Koreans, Taiwanese, Israelis, Australians, South Africans, and possibly other countries.

Weapon	Ammunition	Weight	Magazines	Price
IWS-2000	15.2mm Steyr AMR	18 kg	5, 8, 10	$13927

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
IWS-2000	SA	14	1-1-1	12	3	Nil	168
(With bipod)	SA	14	1-1-1	12	2	Nil	218

Accuracy International AW-50 Series

Notes: The AW-50 is essentially an enlarged version of Accuracy International's smaller sniper rifles. The features of the AW-50 are basically the same as those of the AI's other rifles (particularly the AW/L-96A1), but suitably enlarged to handle the much larger cartridge. The British are known to be users of the AW-50 and AW-50F, while the Australians have recently chosen the AW-50F for use as one of their antimateriel rifles. The users of the AW-50FT are as yet unknown.

All AW-50s are bolt-action magazine-fed rifles with receivers partially built from steel (in areas where high strength is required) and aircraft-quality aluminum alloy. The receiver is bedded to a chassis also of aluminum alloy, one which has an integral anti-recoil system. The 27-inch barrel is of heavy stainless steel and is tipped with a rather long but high-efficiency muzzle brake. The stock folds for transport (but the AW-50 cannot be fired with the stock folded) and the buttplate is padded and adjustable for length of pull and height. The stock also has a cheekpiece which is adjustable for height and position along the stock. The folding bipod is fitted at the front of the receiver and is adjustable for height and cant; the butt also has a folding monopod adjustable for height. The trigger is also adjustable for pull weight and length. The receiver is topped with a MIL-STD-1913 rail for optics; backup iron sights are optional, but not normally found on the AW-50. (The normal scope in British service is a 3-12x50 Mk II with an illuminated Mil-Dot-type reticle.) The AW-50 was introduced in 1998, and was said to have drawn first blood in 2001.

In 1999, AI introduced a further development of the AW-50, the AW-50F. The biggest difference between the AW-50F and the original AW-50 is the lesser weight (without compromising strength), achieved through the use of more advanced metals and metalworking methods. In 2002, the AW-50FT version was introduced; in this model, much of the steel is replaced with titanium, reducing the weight even further while actually making the AW-50FT even stronger.

Twilight 2000 Notes: British special operations snipers were the only known users of the AW-50 in the Twilight War, and it is estimated that they only had no more than 8-10 of them the entire war. The AW-50F and AW-50FT do not exist in the Twilight 2000 timeline.

Merc 2000 Notes: In a world saturated by US, Russian, and Eastern European antimaterial rifles, the AW-50 did not find many buyers.

Weapon	Ammunition	Weight	Magazines	Price
AW-50	.50 Browning Machinegun	15 kg	5	$7922
AW-50F	.50 Browning Machinegun	13.64 kg	5	$7942
AW-50FT	.50 Browning Machinegun	12.73 kg	5	$7989

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
AW-50 (All)	BA	9	2-3-4	7/10*	3	Nil	106
(With Bipod)	BA	9	2-3-4	7/10*	1	Nil	137

*Though the AW-50 series will fold to a bulk of 7, the AW-50 series CANNOT be fired with the stock folded.

Accuracy International AS-50

Notes: At first thought to be a semiautomatic development of the AW-50 series, the AS-50 is in fact a new design. Reputedly developed at the behest of US Navy SEALs, it is also being evaluated by other member of the special operations community and sniper community (both in the US and otherwise), including combat testing in Afghanistan and Iraq, where it has received excellent reviews. It was first shown at the 2005 SHOT Show, but what the rifle had been doing up to that point and what it is doing now has not been officially stated by Accuracy International.

The AS-50 is gas-operated with a single rear locking system (a variant of a tilting bolt). Construction is of high-grade, high-strength steel. The stock and certain other parts (pistol grip, rear grip/stand, and some other minor parts) are made from polymer. The stock may detached for transport (it can actually be fired without the stock, but it is not recommended due to the recoil and lack of support), along with the barrel. The butt has a thick rubber recoil pad. The 27.25-inch barrel is heavy, match-quality, free-floating, and fitted with a large and effective muzzle brake. The folding bipod is attached just forward of the receiver and is adjustable for height and cant, as well as being able to be rotated up to 90 degrees in either direction. The top of the receiver and gas tube are fitted with a full-length MIL-STD-1913 rail, which extends almost to the end of the barrel. The handguards are short, but also have MIL-STD-1913 rails on either side. The AS-50 has a total of four sling swivels to allow a variety of slings and harnesses to be mounted. No iron sights are provided. The charging handle is unusual in that it can be replaced by ones of differing lengths and bends, as the shooter and tactical situation dictates. There is a manual safety which blocks the trigger mechanism, as well as several passive safeties.

Twilight 2000 Notes: The AS-50 is not available in the Twilight 2000 timeline, though Accuracy international engineers did develop a rare semiautomatic version of the AW-50 (treat as a semiautomatic AW-50).

Weapon	Ammunition	Weight	Magazines	Price
AS-50	.50 Browning Machinegun	14.1 kg	5	$5715

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
AS-50	SA	9	2-3-4	11	3	Nil	113
With Bipod	SA	9	2-3-4	11	1	Nil	143

Accuracy International AX-50

The AX-50 is an antimateriel rifle version of the AX, sort between an AS-50 and AX-50 in features.. It is designed to exhibit extreme toughness, especially under battle conditions. Most of the advantages and functions of the rest of the AX series are present in the AX-50. The barrel is 27 inches long. The barrel, like the others, is floating, match-grade, hand-fitted, heavy-duty, and a large muzzle brake, and made from a special steel alloy. The barrel is removable so that a less-worn barrel can be attached. The AX-50 is largely machined from steel billets. It has a proprietary flat-bottomed profile, and has a full-length recoil lug. The AX-50 has MIL-STD-1913 rails, above the receiver, atop the handguards, and at 3, 6, and 9'oclock positions on the handguard. Unlike the AXMC series, the AX-50 is finished in black. The pistol group and controls are AR-15-stype. The trigger is two-stage.

Twilight 2000 Notes: This rifle does not exist in the Twilight 2000 timeline.

Weapon	Ammunition	Weight	Magazines	Price
AX-50	.50 Browning Machinegun	27.5 kg	5	$8000

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
AX-50	SA	9	2-3-4	10/11	3	Nil	126
With Bipod	SA	9	2-3-4	10/11	1	Nil	159

Boys Mark 1/Mark 2

Notes: This weapon was originally designed in the mid-1930s by Captain Boys of the British Small Arms Committee. They gave it the name of Stanchion, but when Captain Boys suffered an untimely death (of natural causes), the Committee decided to name the new weapon after him. Unfortunately, by this point the antitank rifle was already a spectacularly useless weapon in its intended role and it was withdrawn from service in 1942 except in certain specialized sniping roles. The Boys Mark 1 was a very large rifle, with a 36-inch barrel. In 1942, the Mark 2 was designed; it was a short 30-inch-barreled model of the Boys for use by paratroopers, but was even more useless against the armor the Germans were fielding at the time. The Mark 2 had a short period of popularity as a heavy sniping rifle, but as it was very unpleasant to fire, it was withdrawn after less than a year.

The US Marine Raiders used a variant of the Boys Mark 1, built for them by Canada; these were chambered for .50-caliber ammunition, and had a strengthened action, beefed-up bipod, muzzle brake, and with a scope mount. The Raiders used them as a long-range sniper rifle during the Korean War, though they were never type standardized or adopted on an official basis.

The Boys was, design-wise, a rather austere weapon; most of the barrel is unsupported (though it is NOT a floating barrel) and the receiver looks almost like raw, unfinished metal. The butt is similar to that of the PIAT, though larger, and has a thick recoil pad that unfortunately does little to mitigate the felt recoil. The buttstock is equipped with a folding monopod, and the front of the receiver is equipped with a folding bipod that is adjustable for height. The pistol grip is canted forward at an odd angle (if any of my readers know why the grip is canted like this, let me know at the email address on the home page). Sights are simple aperture sights, seemingly inadequate for such a weapon, though civilian enthusiasts have, over time, improvised mounts for telescopic sights.

The few examples that are still in firing condition today could each probably buy a person a decent car, and the ammunition usually has to be handloaded.

Weapon	Ammunition	Weight	Magazines	Price
Boys Mark 1	.55 Boys	16.32 kg	5	$6615
Boys Mark 2	.55 Boys	14.58 kg	5	$6327
Boys Mark 1 (Marine Raider)	.50 Browning Machinegun	16.32 kg	5	$9725

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
Boys Mark 1	SA	10	2-2-3	10	5	Nil	150
Boys Mark 1 (Bipod)	SA	10	2-2-3	10	3	Nil	196
Boys Mark 2	SA	9	2-3-4	9	5	Nil	96
Boys Mark 2 (Bipod)	SA	9	2-3-4	9	2	Nil	125
Boys Mark 1 (Marine Raider)	SA	9	2-3-4	12	4	Nil	138
Boys Mark 1 (Bipod)	SA	9	2-3-4	12	2	Nil	179

China Poly Group M-99 AMR

Notes: Unlike most of the other new Chinese antimateriel rifles, the M-99 was designed specifically for export and is not used by the Chinese military. (It is not known whether future alternate chamberings will be offered, but I'd say it is probable.) Though the M-99 looks very much like the British AS-50, but there are many differences in appearance externally (particularly in the design of the handguards and barrel shroud) and there are significant differences internally. The M-99 was first shown in public in mid-2005, but if anyone has bought them, those parties are unknown. It is known that China does intend the M-99 for military, police, and civilian sales.

The M-99 uses gas semiautomatic operation; construction of the receiver (which is essentially one-piece), barrel shroud, and buttstock are of high-quality aluminum alloy, while the 36.9-inch barrel is free-floating and tipped with a large multi-baffle muzzle brake reminiscent of that of the Barrett series. The gas piston above the barrel is also of steel and covered with a thermal sleeve, and has a chromed interior. The bipod is on a strut extending from the receiver; it folds forward, and is adjustable for height and cant. The butt is also essentially integral with the receiver, with a gripping handle beneath the stock and a folding adjustable monopod and a thick rubber recoil pad. The sight mount is proprietary (and on the right side of the receiver), but will accept a wide variety of eastern and western optics; China Poly Group, the makers of the M-99, normally sell the M-99 with an 8x or 10x scope of Chinese design.

Recently, three variations of the M-99 have been revealed. All are bullpup versions of the M-99. The M-99B is essentially a straight conversion of the M-99 to a bullpup format, and chambered for both 12.7mm Russian and .50 Browning Machinegun. (Oddly enough, a .50 version of the standard M-99 has apparently *still* not been built.) Feed, however, is generally from drums instead of box magazines, ejection is to the right side, with the ejection port well forward and apparently using some form of chute-type ejection to allow the cases to make their way to the ejection port. The sight mount (still on the right side of the receiver), is fitted with a true MIL-STD-1913 rail. The length of the barrel remains 36.9 inches, with the same muzzle brake.

The Type 06 (also known as the M-06) is chambered only for 12.7mm Russian, and appears to be issued only to Chinese troops for certain special tasks. It is essentially similar to the M-99B, but uses an astounding 41.23-inch barrel, tipped with a different muzzle brake than that used by the M-99 and M-99B.

Twilight 2000 Notes: The M-99, M-99B, and Type 06 do not exist in the Twilight 2000 timeline.

Weapon	Ammunition	Weight	Magazines	Price
M-99	12.7mm Russian	12.3 kg	5	$10834
M-99B-1	12.7mm Russian	12 kg	5 Drum	$10824
M-99B-2	.50 Browning Machinegun	11.68 kg	5 Drum	$10255
Type 06	12.7mm Russian	12.09 kg	5 Drum	$10968

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
M-99	SA	9	2-3-4	10	3	Nil	144
With Bipod	SA	9	2-3-4	10	1	Nil	187
M-99B-1	SA	9	2-3-4	8	3	Nil	129
With Bipod	SA	9	2-3-4	8	1	Nil	168
M-99B-2	SA	9	2-3-4	8	3	Nil	138
With Bipod	SA	9	2-3-4	8	1	Nil	180
Type 06	SA	10	2-2-3	9	3	Nil	153
With Bipod	SA	10	2-2-3	9	2	Nil	198

China South Industries Group AMR-2

Notes: Designed to be both an antimateriel and long-range sniper rifle, the AMR-2 is in many ways of conventional design, and in many ways not so much. Designed by China South Industries Group, the AMR-2 was introduced in the early 2000s and is believed to be already in use by specialized Chinese forces. (I wouldn't be surprised if they were also offering it for export.)

The AMR-2 is a bolt-action, magazine-fed design with an internal design of fairly-conventional type. The stock is skeletonized, but does have an adjustable cheekpiece and a thick recoil pad. The free-floating barrel is close to 33.5 inches long and is tipped by a large double-barrel muzzle brake. The stock can be folded (primarily for transport, though firing is also possible, is not difficult, with the stock folded.) Ahead of the handguards is a rather flimsy-looking bipod adjustable for height and cant; this bipod is mounted above the barrel on a lug projecting from the handguard instead of below the weapon. Construction is largely of lightweight yet strong steel, with some polymer parts such as the pistol grip, handguards, cheekpiece, and recoil pad. Iron sights are not provided, though the receiver is topped by a local modification of a MIL-STD-1913 rail which can take almost as large a range of optics as a standard MIL-STD-1913 rail. (It is actually optimized for Chinese optics, however.)

Twilight 2000 Notes: Prototypes were available in extremely small numbers as early as 1995, but they are *extremely* rare in the Twilight 2000 timeline.

Weapon	Ammunition	Weight	Magazines	Price
AMR-2	12.7mm Russian	9.8 kg	5	$9530

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
AMR-2	BA	9	2-3-4	8/10	3	Nil	128
With Bipod	BA	9	2-3-4	8/10	2	Nil	162

JS Antimateriel Rifle

Notes: Originally meant to be a competitor to the AMR-2 above, the JS AMR turned out so well that reportedly the PLA is also using it in a limited role, much like the AMR-2, and rumors say they may soon be shopping it around for export. Unlike the AMR-2, however, the JS AMR's development was funded entirely by the Jian She Group, completely a private venture. The JS AMR therefore has some innovative features. It was first shown to the Chinese military in 2004, and fielding began in 2005.

Though the JS AMR appears similar to the Maadi-Griffin series of antimateriel rifles, it is in fact an entirely independent design. The JS AMR is a bolt-action design with the action enclosed within a tubular receiver. The bolt and the barrel are attached to and reciprocate with a hydraulic buffer that acts as a recoil reducer. The skeletonized stock is also of tubular steel, with a lightly-padded buttplate. Below the buttstock is a folding monopod for long hides. Above the receiver is a short, modified version of a MIL-STD-1913 rail, typically used with a compact 12x scope. There is also a folding carrying handle atop the barrel shroud at the point of balance of the rifle. The nearly 33.5-inch barrel is free-floating and match-quality, and designed specifically for use with tungsten-cored AP ammunition developed specifically for this rifle by Jian She. Jian She has also developed an APDS round for the JS AMR, able to be used with a muzzle brake. The barrel is tipped by a large, round, double-baffle muzzle brake. Feed is from a 3-round box magazine mounted on the left side of the receiver above the pistol grip. The folding bipod is at the front of the barrel shroud and is reminiscent of Harris-type light bipods. It is adjustable for height and cant.

Twilight 2000 Notes: The JS AMR does not exist in the Twilight 2000 timeline.

Weapon	Ammunition	Weight	Magazines	Price
JS AMR	12.7mm Russian	12.8 kg	3	$8425

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
JS AMR	BA	9	2-3-4	9	2	Nil	128
With Bipod	BA	9	2-3-4	9	1	Nil	162

W-03 AMR

Notes: This antimaterial/long-range sniping rifle entered service with PLA special operation units in limited numbers in 2005. The developer of the W-03 is unknown as of yet, but rumors say it may have been NORINCO.

The W-03 uses a bullpup design to make it more compact, yet give it a decent-length barrel. The stock and pistol grip are made from high-quality, weatherproofed wood, while the metalwork is largely of various grades of steel. The free-floating barrel comes in two lengths, 29 inches and close to 39.5 inches; both are tipped with a large multi-baffle muzzle brake. The optics mount is on the left side of the receiver and curves over the top of the receiver; it can take a wide variety of optics (though it is proprietary in nature). No iron sights are provided. Under the butt is a folding monopod, while the front of the handguard has a forward-folding bipod mounted, adjustable for height and cant. The magazine fits entirely inside the buttstock.

Twilight 2000 Notes: The W-03 does not exist in the Twilight 2000 timeline.

Weapon	Ammunition	Weight	Magazines	Price
W-03 (29" Barrel)	12.7mm Russian	11 kg	5	$8216
W-03 (39.44" Barrel)	12.7mm Russian	12 kg	5	$8546

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
W-03 (29")	BA	9	2-3-4	7	3	Nil	91
With Bipod	BA	9	2-3-4	7	1	Nil	118
W-03 (39.44")	BA	9	2-3-4	9	3	Nil	146
With Bipod	BA	9	2-3-4	9	1	Nil	190

RH-ALAN MACS-M2A

Notes: This Croatian weapon is the standard heavy sniper rifle of that country. It is a single-shot, bolt-action weapon with an adjustable buttstock, cheekpiece, and trigger. The 31.1-inch barrel is tipped with a large multi-baffle muzzle brake. The bipod is fairly simple and of inexpensive construction, but is adjustable for height. The standard sight for this weapon is a Kahles ZF 10x42. It is reminiscent in appearance to the AMAC 50. These weapons have literally turned up everywhere, including the former Yugoslavia, Africa, Afghanistan, and Southeast Asia (usually in the hands of bad guys).

The MACS-M3 is the MACS-M2A reconfigured into a bullpup design. The bolt action protrudes over the shoulder of the firer. It is otherwise the same weapon as the MACS-M2A, though the barrel length is reduced slightly to 29.9 inches. It is used on a limited basis by the Croatian Army, but most firers find it unwieldy and clumsy, especially when reloading.

Twilight 2000 Notes: Like many Croatian weapons, the MACS-M2A is used mostly by Croatian and Slovenian snipers, but can also be found in Serbia, Bosnia, and Romania. A small amount have also turned up in Italian hands. The MACS-M3 is an uncommon modification of the MACS-M2A in the Twilight 2000 World.

Merc 2000 Notes: Like many weapons of the former Yugoslavian republics, these rifles were widely sold on the export market. However, the MACS-M3 was never really popular.

Weapon	Ammunition	Weight	Magazines	Price
MACS-M2A	.50 Browning Machinegun	12.38 kg	1 Internal	$4690
MACS-M3	.50 Browning Machinegun	8.8 kg	1 Internal	$4641

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
MACS-M-2A	SS	9	2-3-4	9	4	Nil	131
MACS-M2A (Bipod)	SS	9	2-3-4	9	2	Nil	170
MACS-M3	SS	9	2-3-4	7	4	Nil	111
MACS-M3 (Bipod)	SS	9	2-3-4	7	2	Nil	144

RH-ALAN RT-20

Notes: The RT-20 (*Rucini Top,* 20mm, or “Hand Cannon”) is an antimateriel rifle, normally used to destroy equipment and light vehicles instead of personnel. It is described by the Croatians as a "hand cannon." The RT-20 is also a rather complicated (though easy to build) Weapon; it is also impractical weapon in many respects due to its configuration, weight, size (over 5.5 feet long), the huge firing signature (more akin to a rocket launcher than that of a rifle), and restrictions on what kind of cover it may be fired from. Despite this, the RT-20 has been wildly popular; it can be found almost anywhere in the world, and a lot of factories that don’t have a license are simply copying it illegally.

The idea of the RT-20 started during the breakup of the former Yugoslavia and the wars which followed it. The Serbs had as part of their tank forces the M-84, which is in fact a rather good tank compared to the average tank in the region, with excellent night vision that could easily pick out Croatian armor and infantry at long distances. The RT-20 was designed to take out the external parts of the thermal cameras of the M-84 (and the optics and vision blocks of other vehicles as well). It was, in fact, quite good at doing this (enough that the Serb military put a bounty on the RT-20 and their gunners), and the mission of the RT-20 was quickly expanded.

That said, the RT-20 can be a bitch to operate. One of the biggest problems is the bullpup/single-shot bolt-action configuration. The bolt and action of the weapon are largely above and behind the shoulder of the gunner when he has the RT-20 on his shoulder; this means that to reload and cock the weapon, the gunner must take it off his shoulder, and then either shove it forward, scoot back, or sit up. (Of course, you don’t want to really sit up when you are in a hide spot…) After that, he has to remove the entire bolt and clip a round to it, then re-insert it into the rifle. And while the RT-20 does have a truly massive multi-baffle muzzle brake, thick rubber pads around the shoulder areas of the rifle, and a heavy recoil spring-type absorber, even these did not prove effective enough in absorbing the recoil of what is normally an aircraft and naval cannon cartridge.

The Croatians therefore turned the RT-20 into sort of a mini-recoilless rifle; the RT-20 has a complex gas system reduces the recoil of shots to manageable levels, one that basically exhausts most of the excess gas from the cartridge through a gas tube and out the rear of the rifle. One result of this system is that the RT-20 has a backblast, and persons behind the weapon are in danger from the escaping gasses. For the same reason, the RT-20 cannot be fired within 2 meters in front of a wall. The firing position is unorthodox, with the firer lying at an angle to the weapon to avoid having his legs burned, similar to prone firing of a rocket launcher. (To help solve the reloading and cocking problem, the spotter on an RT-20 team normally will cock and load the weapon, while the RT-20 remains on the shooter’s shoulder; however, he must move 2-3 meters away during the actual shot, creating its own concealment problems.) The result is that while the RT-20 may require some unusual contortions to use, the recoil is far less than one would expect from a rifle firing this sort of cartridge. (It also means that the term “antimateriel rifle” for this weapon is regarded by many as inaccurate, with some experts calling it an “antimateriel launcher” or something like that.) The combination of large muzzle blast and backblast will almost certainly give away the shooter’s position, making it unsuitable as a sniper’s weapon for most purposes.

The RT-20 has no iron sights; the scope mount is on the side of the weapon and normally is equipped with a Kahles ZF 6x42 scope. The mount is positioned so that is provides a large amount of eye relief, preventing the scope from hitting the shooter during firing and giving him a black eye or other eye damage. The RT-20 is equipped with a lightweight bipod adjustable for height, and to a lesser extent, cant. The RT-20 is also issued with a pair of special backpacks; either pack may carry the entire weapon (broken down), or the RT-20 may be split between the two backpacks. Originally, the RT-20 was an incredibly heavy weapon, later production

brought the weight down considerably due to the use of lighter materials, and the latest variant, the RT-20M1 is significantly lighter, and also has a better muzzle brake, a lesser firing signature, and a lighter yet stronger barrel.

Twilight 2000 Notes: This weapon has proliferated from Spain to Iraq.

Merc 2000 Notes: This is one of Croatia's big sellers; they make a lot of money off of it, and will sell it to just about anyone.

Weapon	Ammunition	Weight	Magazines	Price
RT-20 (Early)	20mm Hispano-Suiza HS-404	25.86 kg	1 Internal	$10223
RT-20 (Late)	20mm Hispano-Suiza HS-404	19.05 kg	1 Internal	$10259
RT-20M1	20mm Hispano-Suiza HS-404	15.88 kg	1 Internal	$10301

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
RT-20 (Early, API)	½	14	3/-2/-5	9	2	Nil	194
(With Bipod)	½	14	3/-2/-5	9	1	Nil	252
RT-20 (Early, HE)	½	C1 B5	-4C	9	2	Nil	161
(With Bipod)	½	C1 B5	-4C	9	1	Nil	210
RT-20 (Early, FRAG)	½	C0 B6	-6C	9	2	Nil	161
(With Bipod)	½	C0 B6	-6C	9	1	Nil	210
RT-20 (Late, API)	½	14	3/-2/-5	9	2	Nil	194
(With Bipod)	½	14	3/-2/-5	9	1	Nil	252
RT-20 (Late, HE)	½	C1 B5	-4C	9	2	Nil	161
(With Bipod)	½	C1 B5	-4C	9	1	Nil	210
RT-20 (Late, FRAG)	½	C0 B6	-6C	9	2	Nil	161
(With Bipod)	½	C0 B6	-6C	9	1	Nil	210
RT-20M1 (API)	½	14	3/-2/-5	9	2	Nil	147
(With Bipod)	½	14	3/-2/-5	9	1	Nil	191
RT-20M1 (HE)	½	C1 B5	-4C	9	2	Nil	106
(With Bipod)	½	C1 B5	-4C	9	1	Nil	139
RT-20M1 (FRAG)	½	C0 B6	-6C	9	2	Nil	106
(With Bipod)	½	C0 B6	-6C	9	1	Nil	139

ZVI Falcon

Notes: The ZVI Falcon (at first known as the OPV or M-96), is a typical antimateriel/long-range sniper rifle firing heavy-caliber ammunition. The Falcon is a bolt-action rifle with a bullpup configuration, using a rotating bolt. The Falcon uses a large squarish multi-baffle muzzle brake coupled with a heavy buffer spring and a thick rubber recoil pad on the butt to help tame the weapon's recoil. The Falcon normally feeds from a 2-round box magazine, though 5-round magazines are available and an insert may be used to convert the Falcon to a single-shot breech-loaded rifle (normally done only for training purposes). For transport purposes, the Falcon may be broken into four groups: the barrel (with attached bipod), the receiver, the sight group, and the buttstock. The barrel is equipped with a carrying handle which folds to either side, and a folding bipod is also mounted on the bracket for the carrying handle. (The bipod is lightweight and adjustable for height, and to an extent, for cant.) The Falcon has iron sights, but primary aiming is done with a telescopic sight mounted on a raised rail. Originally, the scope mount was proprietary and could mount only a narrow range of telescopic sights and night vision equipment, but newer versions have the raised mount topped with a MIL-STD-1913 rail. The normal scope used with the Falcon is a ZD 10x50 with an illuminated reticle.

The Falcon was always intended to be able to use both 12.7mm Russian and .50 Browning Machinegun ammunition. At first, ZVI attempted to design a rifle that could do both with no modifications or changed parts; this version, called the OPV Falcon, used a bolt that could be adjusted by the shooter to fire either round, and the 40.4-inch barrel was rifled so that (supposedly) it could effectively fire both rounds. Snipers testing the OPV version complained that the barrel was too long and clumsy, and that the rifling's twist rate didn't really enable either cartridge to perform to its potential. ZVI therefore designed separate, longer barrels for each chambering; the troublesome adjustable bolt, which gave repeated locking problems, was also dispensed with. The version of the Falcon chambered for 12.7mm Russian is called the OP-96, and uses a 36.5-inch barrel; the .50 Browning Machinegun version is called the OP-99, and has a 33-inch barrel.

Twilight 2000 Notes: This weapon is popular with airborne and air assault troops, as well as special operations, due to its compact size and powerful cartridge. Though there are a few OPVs around, most of them have been discarded or converted to the OP-96 standard. Almost none have been built to fire .50 Browning Machinegun ammunition in the Twilight 2000 timeline.

Weapon	Ammunition	Weight	Magazines	Price
OPV Falcon*	12.7mm Russian and .50 Browning Machinegun	12.83 kg	2, 5	$8625
OP-96 Falcon	12.7mm Russian	12.7 kg	2, 5	$8496
OP-99 Falcon	.50 Browning Machinegun	12.26 kg	2, 5	$7956

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
OPV (12.7mm)	BA	9	2-2-3	12	3	Nil	148
(With Bipod)	BA	9	2-2-3	12	2	Nil	193
OPV (.50)	BA	9	2-3-4	12	3	Nil	158
(With Bipod)	BA	9	2-3-4	12	1	Nil	206
OP-96	BA	9	2-3-4	11	3	Nil	140
(With Bipod)	BA	9	2-3-4	11	1	Nil	182
OP-99	BA	9	2-3-4	11	3	Nil	129
(With Bipod)	BA	9	2-3-4	11	1	Nil	167

*If Catastrophic Failure is indicated by the player's "to hit" roll when firing an OPV, there is a 50% that this Catastrophic Failure is a jam so severe that disassembly of the weapon will be required to clear it. Otherwise, the GM should use whatever he normally uses when a shooter has a Catastrophic Failure.

Helenius RK Series

Notes: The APH RK-97 is a single-shot heavy rifle designed in two versions chambered so that exports will be attractive to virtually any country in the world. Externally, both versions look identical, with a semi-bullpup-type layout (some of the action is in the stock, but some is more towards the center and some in forward of the pistol grip). The stock is of light alloy that is essentially the bare minimum required to enclose the part of the action which is in the stock; attached to this is a raised synthetic shell-type cheekpiece and a padded buttplate. At the front of the forward portion of the receiver is a folding bipod of fixed height; however, the bipod can be partially-folded and locked at different angles, providing a modicum of height adjustment. The very long 44.4-inch barrel is made from heavy steel, and is tipped with a large pepperpot muzzle brake. The muzzle brake can also be removed, revealing threads which can be used with most of the (very few) suppressors available for the ammunition the APH RK-97 fires. The APH RK-97 has no factory-installed iron sights, though it does have attachments points for them; the APH RK-97 is meant to be used with telescopic sights. A scope is attached to standard ring-type mounts, which are mounted on a bracket which attaches to either side of the weapon above the pistol grip.

The strangest part of the APH RK-97 is its vertical dropping breech block operation. The APH RK-97 is breech-loaded, but the action is operated by moving the foregrip in sort of a pump-action. The fore-end is pushed forward, opening the action and allowing the shooter to load a cartridge; then the fore-end is pulled back, raising and locking the breech block.

The APH RK-20 is essentially the APH RK-97 scaled-up to fire a much larger round – the World War 2-vintage Russian 20x99mm ShVAK cartridge (originally designed to be fired from aircraft-mounted cannons of the period; the cartridge is known to the Finns as the 20x100mm Swak). Other than the larger size of the action, receiver, the diameter of the barrel (even though the barrel is much shorter at 33.9 inches), and a larger and heavier pepperpot muzzle brake, the APH RK-20 is essentially identical in design to the APH RK-97.

The RK-99 is essentially an updated, magazine-fed version of the APH RK-97; externally, it looks a bit different, with a more squared receiver and action housing, and the shorter 32.4-inch barrel. Internally, of course, the RK-99 is very different than the APH RK-97, due to its repeating action; when the "pump" action is used, a round is pulled into the chamber and the action locks via a rotating bolt; after firing, the spent round is ejected normally, like that of the APH RK-97. The 5-round magazine is standard; 10-round magazines are available, but tend to present a "third leg" problem due to the size of the magazine and the bullpup layout, and are therefore not normally used. The RK-99 was not introduced until 2000, as opposed to the APH RK-97 and APH RK-20, which were introduced in late 1997.

More or less related to the RK-99 is the RK-99MK1. The RK-99MK1 is a single-shot rifle, but actuating the "pump" mechanism drops the entire bolt carrier assembly out of the bottom of the receiver; the bolt carrier includes a shell holder for the cartridge. After inserting the cartridge, the bolt carrier assembly is re-inserted into the receiver and the "pump" slide pulled back to lock it into position. After firing, the bolt carrier is again dropped out of the rifle, with the expended shell being ejected separately. This operation allows more positive locking and greater reliability in a single-shot weapon, as well as allowing greater flexibility in using different ammunition types, but also greatly slows down the reloading of the weapon. The RK-99MK2 is basically identical to the RK-99MK1 (except for the changes required for the different caliber and a shorter 31.5-inch barrel), but is chambered for the 20mm ShVAK cartridge.

Twilight 2000 Notes: The APH RK-97 and APH RK-20 were not known to be used outside of Finland in the Twilight 2000 timeline; even in Finnish service, they are rarities. The RK-99, RK-99MK1 and RK-99MK2 do not exist in the Twilight 2000 timeline.

Merc 2000 Notes: The APH-RK-97 is a big seller around the world, particularly chambered in .50 Browning Machinegun; the APH RK-20 is less popular, mostly due to the greater weight, recoil, and relatively limited applications. The RK-99 is even more popular than the APH RK-97; the RK-99MK1 and RK-99MK2, less so than even the APH RK-97 and APH RK-20.

Weapon	Ammunition	Weight	Magazines	Price
APH RK-97	12.7mm Russian	14.02 kg	1 Internal	$7209
APH RK-97	.50 Browning Machinegun	13.58 kg	1 Internal	$6996
APH RK-20	20mm ShVAK	22.5 kg	1 Internal	$9300
RK-99	12.7mm Russian	12.02 kg	5, 10	$8360
RK-99	.50 Browning Machinegun	11.64 kg	5, 10	$7937
RK-99MK1	12.7mm Russian	12.02 kg	1 Internal	$5013

RK-99MK1	.50 Browning Machinegun	11.64 kg	1 Internal	$4799
RK-99MK2	20mm ShVAK	20 kg	1 Internal	$9216

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
APH RK-97 (12.7mm)	SS	10	2-2-3	11	3	Nil	187
(With Bipod)	SS	10	2-2-3	11	2	Nil	244
APH RK-97 (.50)	SS	10	2-2-3	10	3	Nil	200
(With Bipod)	SS	10	2-2-3	10	2	Nil	260
APH RK-20 (API)	SS	14	3/-1/-3*	10	3	Nil	176
(With Bipod)	SS	14	3/-1/-3*	10	2	Nil	228
APH RK-20 (HE)	SS	C1 B4	-5C	10	3	Nil	146
(With Bipod)	SS	C1 B4	-5C	10	2	Nil	190
RK-99 (12.7mm)	BA	9	2-3-4	11	3	Nil	117
(With Bipod)	BA	9	2-3-4	11	1	Nil	152
RK-99 (.50)	BA	9	2-3-4	10	3	Nil	125
(With Bipod)	BA	9	2-3-4	10	1	Nil	163
RK-99MK1 (12.7mm)	1/2	9	2-3-4	8	3	Nil	117
(With Bipod)	1/2	9	2-3-4	8	1	Nil	152
RK-99MK1 (.50)	1/2	9	2-3-4	8	3	Nil	125
(With Bipod)	1/2	9	2-3-4	8	1	Nil	163
RK-99MK2 (API)	1/2	14	3/-1/-3*	9	3	Nil	157
(With Bipod)	1/2	14	3/-1/-3*	9	2	Nil	204
RK-99MK2 (HE)	1/2	C1 B4	-5C	9	3	Nil	131
(With Bipod)	1/2	C1 B4	-5C	9	2	Nil	170

*Penetration against personnel is 2-2-3.

Lahti m/39 Antitank Rifle

Notes: Not a sniper rifle in the strictest sense, the m/39 was used as one many cases, typically to take out the vision blocks or put holes in gun barrels of armored vehicles. It was derived directly from the Lahti m/37 aircraft cannon, and as little modification as possible was made to turn it into a shoulder arm. Most of these weapons were adapted to bolt-action, but some kept their automatic mechanisms, something guaranteed to generate brutal recoil, especially considering that only a thin rubber recoil pad separated the firer from the very rudimentary stock. Perhaps the most unusual feature is the bipod, complete with a set of skis.

Weapon	Ammunition	Weight	Magazines	Price
Lahti m/39 (Bolt-Action)	20mm Long Solothurn	42.1 kg	10	$21796
Lahti m/39 (Automatic)	20mm Long Solothurn	42.1 kg	10	$16228

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
m/39 (AP)	BA	17	2-2-2 (2/1/1/0)	14	6	Nil	311
m/39 (AP, Bipod)	BA	17	2-2-2 (2/1/1/0)	14	3	Nil	404
m/39 (HEI)	BA	C1 B6	-4C	14	6	Nil	229
m/39 (HEI, Bipod)	BA	C1 B6	-4C	14	3	Nil	300
m/39 (AP)	5	17	2-2-2 (2/1/1/0)	14	5	14	283
m/39 (AP, Bipod)	5	17	2-2-2 (2/1/1/0)	14	3	7	367
m/39 (HEI)	5	C1 B6	-4C	14	5	14	208
m/39 (HEI, Bipod)	5	C1 B6	-4C	14	3	7	272

Mauser PzB-38/PzB-39

Notes: The PzB-38s round combined an 8mm Mauser bullet with a much larger 13mm cartridge shell. The result was a small but fairly heavy bullet that flew at a very high velocity to achieve penetration by a principle similar to modern sabot rounds. The bullet used a core of armor-penetrating steel combined with a small capsule of tear gas; the tear gas portion was entirely useless, as the capsule seldom ruptured as it was supposed to, and the amount of tear gas was so tiny as to have negligible, if any, effects. (It may be safely ignored for game purposes.) The PzB-38 was a single-shot rifle using an operation more akin to artillery pieces than to rifles, with a breech block rather than a conventional bolt action.

The PzB-38, while nearly useless (as were most antitank rifles) against the armor of the day, was an effective long-range sniping weapon. It was also expensive and slow to manufacture, even in the small number that were built. The PzB-38 was thus replaced in production by the simplified PzB-39. This rifle dispensed with the recoiling barrel and semiautomatic breech, and using the pistol grip to open the breech instead of a separate handle. Unfortunately, it was also more painful to fire, and Nazi snipers got a hold of the earlier PzB-38 whenever possible.

During the invasion of Poland in World War 2, examples of ammunition for the Polish Wz-35 antitank rifle were captured. This weapon fired a tungsten-cored AP round. This round was reverse-engineered for use in the PzB-38 and PzB-39.

Starting in 1942, PzB-39s returned for repair of damage or refurbishing were rebuilt with a shortened, 23.22-inch barrel (versus the 42.7-inch standard barrel). A cup adapter to fire standard German rifle grenades was fitted at the muzzle, and special ammunition with a wooden bullet was issued with the converted rifles to fire the grenades. Standard ammunition could also be fired from the converted rifles; however, the converted weapon, the Granatbüchse Modell 39 (GrB-39) was not intended for use as a rifle and standard 7.92 Patronen ammunition was not normally issued to the crew of a GrB-39. Stats are still provided for such below, including an attempt to show what happens when the wooden bullet is fired at a person. I unfortunately do not have enough information on German World War 2 rifle grenades to even mock them up right now. There were three types of grenades, a light antiarmor grenade, a heavy antiarmor grenade, and an antipersonnel grenade. The sights fitted to the GrB-39 are graduated out to 150 meters. It should be noted that the grenade cup of the GrB-39 is an effective flash suppressor.

Weapon	Ammunition	Weight	Magazines	Price
PzB-38	7.92mm Patronen	15.88 kg	1 Internal	$2142
PzB-39	7.92mm Patronen	12.35 kg	1 Internal	$2085
GrB-39	7.92mm Patronen	12.6 kg	1 Internal	$1052

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
PzB-38	SS	6	1-3-5	8/9	4	Nil	161
PzB-38 (Bipod)	SS	6	1-3-5	8/9	2	Nil	204
PzB-38 (AP)	SS	6	1-1-2	8/9	4	Nil	193
PzB-38 (AP, Bipod)	SS	6	1-1-2	8/9	2	Nil	245
PzB-39	SS	6	1-3-5	9/10	5	Nil	160
PzB-39 (Bipod)	SS	6	1-3-5	9/10	3	Nil	203
PzB-39 (AP)	SS	6	1-1-2	9/10	5	Nil	192
PzB-39 (AP, Bipod)	SS	6	1-1-2	9/10	3	Nil	243
GrB-39	SS	5	2-4-Nil	7/8	4	Nil	47
GrB-39 (Bipod)	SS	5	2-4-Nil	7/8	2	Nil	62
GrB-39 (AP)	SS	5	1-3-Nil	7/8	4	Nil	57
GrB-39 (AP, Bipod)	SS	5	1-3-Nil	7/8	2	Nil	74
GrB-39 (Wooden Bullet)	SS	2	Nil	7/8	3	Nil	39
GrB-39 (Wooden Bullet, Bipod)	SS	2	Nil	7/8	2	Nil	52

Mauser Tankgewehr M1918

Notes: Also known as the Mauser 13mm Antitank Rifle and the T-Gewehr, the M1918 was the first rifle designed for the sole purpose of dealing with armored targets – at first, the armor plate used in trench fortifications and soon thereafter, the first tanks. Mauser was inspired by rifles used in big game hunting, but the M1918 quickly grew larger than any of them. The M1918 was a single-shot bolt action weapon using the tried-and-true Mauser action; in many ways, the M1918 is an overgrown Gewehr 98. It uses a 984-millimeter barrel. It has a pistol grip and a bipod, but had no other means of reducing recoil, and felt recoil is heavy. It was meant to be fired from a bipod or from inside a trench; hand firing the M1918 was brutal. The 13mm T-Patrone round the M1918 fired was originally designed for the projected Maxim MG18 machinegun (which was to be fielded by Germany in 1919), and was a large, high-velocity cartridge the size of a short cigar.

After World War 1, the M1918 was tested by the Allied Powers, and Britain kept a number of them in working order, thinking they might be useful at some point. The Germans likewise were allowed to keep them in service. Poland, Sweden and Finland put them in service, though Finland merely kept them in working order and never used them in combat. The Russians had a small collection of M1918s they got from Britain and Poland, and in 1939 they retro-engineered the M1918 to fire 12.7mm Russian ammunition, and small amounts were hand-produced by the Baumann Institute in Russia and put into service in 1941. These modified M1918s were

later discarded in favor of the PTRS-41 and PTRD-41 antimateriel rifles.

Right or wrong, some collectors in the US and Europe have rechambered M1918s to fire .50-caliber ammunition. Yes, 13mm T-Patrone ammunition is rare and expensive, but that's criminal…

Weapon	Ammunition	Weight	Magazines	Price
Tankgewehr M1918	13mm T-Patrone	18.5 kg	1 Internal	$4277
Tankgewehr M1918 (Russian)	12.7mm Russian	18.5 kg	1 Internal	$4701
Tankgewehr M1918 (Collector)	.50 Browning Machinegun	18.5 kg	1 Internal	$4488

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
Tankgewehr M1918	SS	9	2-3-4	10	5	Nil	182
(Bipod)	SS	9	2-3-4	10	3	Nil	237
Tankgewehr M1918 (Russian)	SS	9	2-3-4	10	5	Nil	158
(Bipod)	SS	9	2-3-4	10	3	Nil	205
Tankgewehr M1918 (.50)	SS	9	2-3-4	10	5	Nil	169
(Bipod)	SS	9	2-3-4	10	3	Nil	220

Gepard M-1

Notes: The Gepard M-1 is rather large single-shot heavy rifle with a very long 42.4-inch barrel made from heavy steel, and tipped with a small but very effective muzzle brake (which unfortunately also produces a great deal of muzzle flash). The Gepard M-1 is largely built of tubular steel, including most of the stock, which is basically skeletonized with a heavily-padded buttplate and a padded cheekpiece which looks like an afterthought on the part of the designers, though it is in fact quite comfortable. The entire rifle is quite simple and reportedly easy to manufacture and maintain.

The Gepard M-1 has a low rate of fire, but a satisfying long range and damage rating. Reloading can be slow in the hands of an unpracticed firer; to reload, the pistol grip/bolt carrier combination must be rotated, pulled back, and removed; the cartridge is then inserted, and the grip/block combination re-inserted. The Gepard M-1 comes with an adjustable bipod is normally provided, but the bipod or a tripod from a PK machinegun may also be used. For the M-1A1, there is a backpack frame that allows for easier cross-country carrying and works as a soft mount. Though the normal cartridge for the Gepard M-1 is the 12.7mm Russian cartridge, small amounts of them are built to fire .50 Browning Machinegun ammunition; this is usually done at the request of certain customers; it has been speculated, however, that more Gepard M-1s may be built in .50 Browning Machinegun with Hungary's entrance into NATO.

The M-1A1 version is basically identical, but the rifle is mounted on a backpack frame which doubles as a firing platform/soft mount. The M-1A1 can be removed from the firing platform/backpack, but it has no mounts for either a bipod or tripod.

Twilight 2000 Notes: Almost no M-1s and M-1A1s were built for .50 Browning Machinegun ammunition in the Twilight 2000 timeline.

Weapon	Ammunition	Weight	Magazines	Price
Gepard M-1	12.7mm Russian	19 kg	1 Internal	$5353
Gepard M-1	.50 Browning Machinegun	18.56 kg	1 Internal	$5140
Gepard M-1A1	12.7mm Russian	22 kg	1 Internal	$5403
Gepard M-1A1	.50 Browning Machinegun	21.56 kg	1 Internal	$5190

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
Gepard M-1 (12.7mm)	1/2	10	2-2-3	13	4	Nil	194
(With Bipod)	1/2	10	2-2-3	13	2	Nil	253
(With Tripod)	1/2	10	2-2-3	13	1	Nil	389
Gepard M-1 (.50)	1/2	9	2-3-4	13	3	Nil	207
(With Bipod)	1/2	9	2-3-4	13	2	Nil	270
(With Tripod)	1/2	9	2-3-4	13	1	Nil	415
Gepard M-1A1 (12.7mm)	1/2	10	2-2-3	13	4	Nil	194
(With Firing Platform)	1/2	10	2-2-3	13	1	Nil	389
Gepard M-1A1 (.50)	1/2	9	2-3-4	13	3	Nil	207
(With Firing Platform)	1/2	9	2-3-4	13	1	Nil	415

Gepard M-2

Notes: Though the Gepard M-2 is based on the M-1, it is externally different and internally quite different than the M-1. This is because the M-2 is a semiautomatic magazine-fed rifle instead of a single-shot weapon. Though cocking is done with the same rotating pistol

grip, this is basically where the similarity in operation ends; the M-2 is a repeating rifle using long-recoil operation. The barrel of the M-2 is of the same construction as that of the M-1, but almost an inch longer at 43.2 inches (and tipped by a different muzzle brake which reduces muzzle flash somewhat); however, the design of the M-2 is a semi-bullpup type and the rifle itself is actually some 13.2 inches shorter than the M-1. The M-2 is also intended to be more of an antimateriel weapon, as opposed to the M-1 which is meant more for antipersonnel work. The scope mount is uses a somewhat different elevated mount which allows more flexibility is scope choice; it can use Western European telescopic sights (but not night vision equipment), in addition to those used by the M-1. There are no iron sights on the M-2 either. (The standard scope is a Romanian-built 6x42 model with an illuminated reticle.) The magazine feed is just above the pistol grip on the left, with an ejection port on the other side; the magazine is inserted at about a 45-degree angle downward from the receiver. Unlike the M-1, the M-2 cannot be mounted on a tripod. A different bipod is also used, but it is lighter and stronger (but still not adjustable, except by locking it at different angles).

The M-2A1 version of the Gepard is intended primarily for use by airborne and special operations troops; the main difference from the M-2 is the reduced-length 32.7-inch barrel, and a sight mount which cannot mount any known night vision device.

Again, with the M-2 and M-2A1 there is speculation that the rifles may in the future be chambered for .50 Browning Machinegun rounds for further integration with NATO. In addition, the Hungarians may also be considering replacing their proprietary sight mounts with MIL-STD-1913 rails for the M-2 and M-2A1 (and later versions of the Gepard).

The Hungarians are known to have sold the M-2 and M-2A1 (and pretty much the entire Gepard series) in many "unnamed" places. There have even been persistent rumors that a few Taliban and Al Qaida personnel captured in Afghanistan were armed with the Gepard M-2 and M-2A1.

Twilight 2000 Notes: As the Twilight 2000 Notes for the M-1/M-1A1. In mid-1997, a Luftwaffe base near the Polish border would lose about one aircraft a week (or have one forced to make an emergency return to base) to a mysterious sniper; after 17 such incidents, this was traced to a Hungarian sniper, on loan to the Poles, who was armed with a Gepard M-2. (He also killed 31 base personnel or pilots and wounded twice that many; included in this was a young German private, who had his arm nearly severed after a round from the sniper killed the puppy he was holding.)

Weapon	Ammunition	Weight	Magazines	Price
Gepard M-2	12.7mm Russian	16.01 kg	5, 10	$6486
Gepard M-2	.50 Browning Machinegun	15.26 kg	5, 10	$6202
Gepard M-2A1	12.7mm Russian	15.01 kg	5, 10	$6138
Gepard M-2A1	.50 Browning Machinegun	14.26 kg	5, 10	$5854

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
Gepard M-2 (12.7mm)	SA	10	2-2-3	10	3	Nil	163
(With Bipod)	SA	10	2-2-3	10	1	Nil	212
Gepard M-2 (.50)	SA	9	2-2-3	10	3	Nil	174
(With Bipod)	SA	9	2-2-3	10	2	Nil	227
Gepard M-2A1 (12.7mm)	SA	9	2-3-4	9	3	Nil	108
(With Bipod)	SA	9	2-3-4	9	1	Nil	140
Gepard M-2A1 (.50)	SA	9	2-3-4	9	3	Nil	115
(With Bipod)	SA	9	2-3-4	9	1	Nil	150

Gepard M-3

Notes: After designing the Gepard M-1 and M-2 series rifles, Istvan Fellegi (the designer of the Gepard series) began to wonder what you would end up with if you designed a rifle around a "truly powerful cartridge" (something he apparently did not consider the 12.7mm Russian or the .50 Browning Machinegun rounds to be). After rejecting several Bloc and Yugoslavian 20mm rounds (and even, reportedly, a few 23mm rounds) due to extreme recoil, he decided to go with the 14.5mm KPV round. The Gepard M-3 is perhaps better known by the name "Destroyer," though this was never an official name given to the rifle; the origins of the name are unknown. The M-3 is designed to engage light aircraft and other targets at longer ranges than the M-2; of course, it can surely make a mess of a person as well. The M-3 is perhaps the most-common and best-known of the Gepard series.

The appearance of the M-3 is quite similar to the standard M-2; however, at 74.4 inches long and with a 63.6-inch barrel tipped with compact (but very efficient) muzzle brake, the M-3 is an absolutely huge rifle; of course, it also has a weight to match. The action is essentially identical (but larger), and also incorporates a hydraulic buffer to further attenuate recoil. The standard telescopic sight for the M-3 is a 12x60 scope of Hungarian make; no iron sights are provided.

Twilight 2000 Notes: Though troops may have liked the firepower, they did not like the fact that it is quite simply a huge weapon. It does have the distinction of being a weapon used in almost equal numbers in the West and East.

Weapon	Ammunition	Weight	Magazines	Price
Gepard M-3	14.5mm KPV	21 kg	5, 10	$8776

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
Gepard M-3	SA	12	2-2-3	13	3	Nil	278
Gepard M-3 (Bipod)	SA	12	2-2-3	13	2	Nil	362

Gepard M-4 SA1

Notes: This may be considered a highly-evolved version of the Gepard M-2. Unlike the M-2, the M-4 SA1 was meant from the outset to have both 12.7mm Russian-firing and .50 Browning Machinegun-firing versions. Though development was listed as complete in 1997, sales figures of the M-4 have never been released.

The entire weapon is of more beefy construction, with a heavy fluted barrel, huge muzzle brake, and a mount for virtually any sort of Western or Eastern optics. It appears to be an M-2 built to a better, more solid standard (one of the complaints of snipers using the M-2 and M-3 was its fragility, especially in the long barrels). Through use of better design, construction, and materials, the strength of the M-4 was increased without greatly increasing the weight of the weapon. Most of the rest of the improvements are in the area of ergonomics, and replacement of the issue scope with one of double the magnification of that normally issued with the M-2 (now normally a 12x60 scope). The magazine well has been moved to the bottom of the weapon; though the M-4 can use 5-round M-2 magazines, it cannot use the 10-round box magazine, using a drum instead. The action is more "normal," using a charging handle on the right side of the receiver; this handle folds when not in use. The action is of the long recoil type, and also reciprocates to an extent to further absorb recoil. The barrel is 31.6 inches long and tipped with a large, multi-baffle muzzle brake which helps with felt recoil and muzzle flash. The bipod is still not adjustable except by varying the angle, but the stock is adjustable for length of pull, and the cheekpiece is adjustable for height and position along the stock. The stock also has a retractable monopod to relieve stress upon the sniper during long hides. A folding carrying handle is mounted above the receiver, and the stock and barrel can telescope for transport (but not be fired in this collapsed state), with a sling being supplied to help this.

The Gepard M-5 SA1 is a version of the M-4 with a much longer 43.3-inch barrel. Though the M-5 SA1 is currently contemplated to be chambered only in 12.7mm Russian, it is quite possible that a .50 Browning Machinegun version will be built in the future. However, the M-5 SA1 currently exists only as advanced prototypes, despite having been in development for almost a decade; this is the fault more of economics than anything else. Considering that the M-4 SA1 is already almost 5 feet long, the M-5 SA1 may well receive the same complaints about size, weight, and clumsiness as other Gepard long-barreled rifles.

Twilight 2000 Notes: The M-4 SA1 was the final member of the Gepard line produced before the Twilight War. The M-5 SA1 was apparently on the drawing boards, but never manufactured.

Weapon	Ammunition	Weight	Magazines	Price
Gepard M-4 SA1	12.7mm Russian	17.01 kg	5, 10D	$6098

Gepard M-4 SA1	.50 Browning Machinegun	16.57 kg	5, 10D	$5815
Gepard M-5 SA1	12.7mm Russian	19.1 kg	5, 10D	$6499
Gepard M-5 SA1	.50 Browning Machinegun	18.66 kg	5, 10D	$6206

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
Gepard M-4 (12.7mm)	SA	9	2-3-4	10	2	Nil	102
(With Bipod)	SA	9	2-3-4	10	1	Nil	132
Gepard M-4 (.50)	SA	9	2-3-4	10	2	Nil	109
(With Bipod)	SA	9	2-3-4	10	1	Nil	142
Gepard M-5 (12.7mm)	SA	10	2-2-3	13	3	Nil	164
(With Bipod)	SA	10	2-2-3	13	1	Nil	213
Gepard M-5 (.50)	SA	9	2-2-3	12	3	Nil	175
(With Bipod)	SA	9	2-2-3	12	1	Nil	228

Maadi-Griffin 89

Notes: Maadi-Griffin is a joint Egyptian-US venture, combining the proven Egyptian company of Maadi with the expert gunsmiths of the US company of Griffin. They primarily make large-caliber long-range rifles, and most of them are in .50 caliber. The Model 89 is one of their largest rifles; it is a nearly four-foot-long bullpup single-shot bolt-action rifle built largely of lightweight yet strong steel, with an aluminum alloy lower receiver. Most of the length of the Model 89 is the barrel, three feet in length and tipped with a large, extremely efficient muzzle brake. (It is not recommended that one stands within a 60 degree arc on either side of this brake, or for that matter, in front of the rifle…) The butt has a thick recoil pad, and the Model 89 may be finished in black oxide, flat black paint, or Parkerized. Custom finishes are also available.

The Model 89 Porter Rockwell Edition is basically a shorter version of the Model 89, with a much shorter barrel. The Model 99 is basically the same rifle, with a much *longer* barrel. The Model 92 is a carbine version; it is often seen without a bipod, but there is one available.

Twilight 2000 Notes: These rifles do not exist in the Twilight 2000 timeline.

Weapon	Ammunition	Weight	Magazines	Price
Model 89	.50 Browning Machinegun	9.98 kg	1 Internal	$4891
Porter Rockwell	.50 Browning Machinegun	8.85 kg	1 Internal	$4700
Model 99	.50 Browning Machinegun	12.7 kg	1 Internal	$5144
Model 92 (17" Barrel)	.50 Browning Machinegun	6.8 kg	1 Internal	$4288
Model 92 (25" Barrel)	.50 Browning Machinegun	8.62 kg	1 Internal	$4542

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
Model 89	SS	9	2-3-4	9	3	Nil	136
(Bipod)	SS	9	2-3-4	9	2	Nil	177
Porter Rockwell	SS	9	2-3-4	8	3	Nil	103
(Bipod)	SS	9	2-3-4	8	2	Nil	134
Model 99	SS	9	2-3-4	10	3	Nil	184
(Bipod)	SS	9	2-3-4	10	1	Nil	239
Model 92 (17")	SS	8	2-3-4	5	3	Nil	38
(Bipod)	SS	8	2-3-4	5	2	Nil	50
Model 92 (25")	SS	8	2-3-4	7	3	Nil	77
(Bipod)	SS	8	2-3-4	7	2	Nil	100

Maadi-Griffin MG-6

Notes: This is a semiautomatic heavy-caliber sniper rifle, similar in appearance to the Model 89 and sort of a repeating version of that rifle. Like the Model 89, the MG-6 is of bullpup configuration, built largely of strong, lightweight steel, with an aluminum alloy lower receiver. The barrel comes in two lengths, and has Maadi-Griffin's trademark muzzle brake which greatly reduces felt recoil. (One should take the same precautions when standing near an MG-6 when it is firing.) The MG-6 is fed by box magazines which are inserted into the left side of the receiver. The MG-6 has no iron sights; it is a scope-only rifle, and has a short MIL-STD-1913 rail on a

mount on top of the receiver. The same finishes are available for the MG-6 as the Model 89.

Twilight 2000 Notes: This rifle does not exist in the Twilight 2000 timeline.

Weapon	Ammunition	Weight	Magazines	Price
MG-6 (26" Barrel)	.50 Browning Machinegun	10.43 kg	5, 10, 13	$5676
MG-6 (36" Barrel)	.50 Browning Machinegun	10.77 kg	5, 10, 13	$6010

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
MG-6 (26")	SA	9	2-3-4	9	3	Nil	81
(Bipod)	SA	9	2-3-4	9	1	Nil	105
MG-6 (36")	SA	9	2-3-4	11	3	Nil	133
(Bipod)	SA	9	2-3-4	11	1	Nil	173

PGM/FN Hecate II

Notes: This is an Intervention sniper rifle (see International Sniper Rifles) on steroids, being chambered for the .50 Browning Machinegun cartridge. Operation is largely the same, as is the entire weapon, though everything is greatly-enlarged to accommodate the much-larger cartridge.

The Hecate II features a heavy steel match-grade 27.6-inch fluted barrel tipped with a very efficient (and large) single-baffle muzzle brake that reduces felt recoil and muzzle flash. Early versions of the Hecate used the same bipod as the M-60 machinegun, though most production weapons use a bipod fully adjustable for height and cant, specifically designed for the Hecate. Early versions also used a wooden stock which could be removed for transport; you could fire the Hecate without it, but you'd be sorry. Most production Hecates use a somewhat heavier version of the UR Intervention stock; this may also be removed, but again, this primarily for transport and firing the Hecate without the stock is definitely not recommended. The new stock also has a folding monopod below it, and a buttplate with a thick recoil pad, as well as a cheekpiece with considerable eye relief. (Unfortunately, neither are adjustable.) In both cases, the stock may be quickly removed without tools; in addition, the bolt handle may be quickly removed to partially disable the rifle if necessary. The Hecate II has a folding carrying handle similar to that of the FN FAL, and the receiver is topped with a MIL-STD-1913 rail. The muzzle brake may be removed and replaced with a silencer; when it does no, the Hecate fires special subsonic ammunition designed for this role, as full-power .50 Browning Machinegun would quickly destroy the silencer.

In the early 2000s, PGM/FN developed a shorter semi-bullpup version of the Hecate II called the Nemesis II, primarily for military special operations use, but FN (who actually markets the Nemesis II and Hecate II) will also sell the Nemesis II to police agencies and government agencies who need them. The entire rifle has been considerably lightened, partially due to the configuration, and partially due to the use of lighter (but no less strong) steels. The Nemesis II also uses a heavy steel match-grade fluted barrel, but it is very slightly shorter at 27.5 inches, and the muzzle brake it uses is more compact (though just as effective). This muzzle brake cannot be replaced with a silencer, however. The buttplate and cheekpiece are both padded, and both are adjustable, and the stock is also collapsible. This stock, however, is not removable, though the ability to remove the bolt handle and the folding monopod are retained. The MIL-STD-1913 rail atop the receiver is also retained, though the Nemesis is equipped with additional MIL-STD-1913 rails on the sides of the sight mount (which is also mounted slightly higher than that of the Hecate II).

Twilight 2000 Notes: The Hecate II was a bit in short supply during the Twilight War, which is why their numbers were supplemented by Harris antimaterial rifles from the US (until they too became unavailable). In addition, the PGM merger with FN did not take place in the Twilight 2000 timeline. The Nemesis II is not available in the Twilight 2000 timeline.

Merc 2000 Notes: There rifles are both popular on the 'world market.

Weapon	Ammunition	Weight	Magazines	Price
Hecate II	.50 Browning Machinegun	16.33 kg	7	$7909

Hecate II (Silencer)	.50 Browning Machinegun Subsonic	17.33 kg	7	$10949
Nemesis II	.50 Browning Machinegun	12.71 kg	5	$7910

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
Hecate II	BA	9	2-3-4	10	3	Nil	110
(With Bipod)	BA	9	2-3-4	10	1	Nil	143
Hecate II (Silenced)	BA	5	2-4-Nil	13	3	Nil	63
(With Bipod)	BA	5	2-4-Nil	13	1	Nil	82
Nemesis II	BA	9	2-3-4	7/8	3	Nil	110
(With Bipod)	BA	9	2-3-4	7/8	1	Nil	142

Type 97

Notes: Sometimes referred to as an antitank machinegun, the Type 97 was perhaps the most powerful rifle of World War 2, and also the most unpleasant to fire due to the power of its ammunition. Though several allowances were made for reducing recoil – gas operation, blowback recoil dampening, and a large muzzle brake – the recoil was so severe that later in the war, the Japanese devised a wheeled carriage for the weapon, calling it the Type 98 (not covered here). The Type 97 is also beastly heavy weapon, as is its ammunition, and normally a crew of four was assigned to one. They had some small success against US Marine light tanks, as well as light armor of the Chinese Army, but all in all saw little service.

Weapon	Ammunition	Weight	Magazines	Price
Type 97	20mm Type 97	68.93 kg	7	$14345

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
Type 97 (AP)	5	16	2-2-2 (2/1/1/0)	13	5	13	225
Type 97 (AP, Bipod)	5	16	2-2-2 (2/1/1/0)	13	3	7	292
Type 97 (HE)	5	C1 B6	-4C	13	5	13	169
Type 97 (HE, Bipod)	5	C1 B6	-4C	13	3	7	219

Marosczek

Notes: This is basically a T-Gew M-1918 stripped of every possible ounce to lighten the weapon, and rechambered to accept a Boys .55 caliber case necked down to take a 7.92mm Patronen bullet. Furthermore, the bullet was tungsten cored to produce better penetration. The price of this power was a barrel life of approximately 200 rounds, after which penetration and muzzle velocity fell off precipitously. The Poles put up a valiant defense against the Germans using this weapon, but it could not match German armor, so it was used largely as an antimaterial and sniping weapon, with the addition of a telescopic sight.

Twilight 2000 Notes: This weapon, strangely enough, made a comeback in the Twilight War as a sniper rifle – this time with a hardened titanium barrel, fiberglass stock, and a SLAP round.

Weapon	Ammunition	Weight	Magazines	Price
Marosczek (WW2)	7.92mm Marosczek	9.1 kg	10	$4130
Maroscek (T2K)	7.92mm Marosczek	7 kg	10	$4315

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
Marosczek (WW2)	BA	6	1-3-Nil	11	4	Nil	128
Marosczek (WW2, Bipod)	BA	6	1-3-Nil	11	2	Nil	167
Marosczek (T2K)	BA	6	1-3-5	11	3	Nil	154
Marosczek (T2K, Bipod)	BA	6	1-3-5	11	1	Nil	200

ZMT WKW II

Notes: A relatively new arrival on the antimateriel rifle scene, the WKW II (*Wielkikalibrowy Karabin Wyborowy,* or Large-Bore Sniper Rifle) more commonly called the Wilk by its manufacturers, was designed both for Polish military use and for export, and meant for tasks from long-range sniping to EOD work. The WKW II is a bullpup-layout rifle with a rather short length considering its 34.6-inch barrel. This barrel is basically of a standard sort for such a rifle: heavy steel, and tipped with large muzzle brake (in this case, with six ports). The WKW II is bolt-action and magazine-fed, with the magazine feeding just in front of the shooter's shoulder but on the opposite side of the rifle. The very rear portion of the stock has a padded buttplate which is adjustable for length of pull and height, and adjusting the height of the buttplate also raises the cheekpiece. A folding carrying handle is located atop the rifle, and the WKW II also has a folding bipod adjustable for height and cant. According to the Poles, the WKW has a new sort of trigger mechanism which enhances accuracy and the speed of follow-up shots, but I have no further information at this time about the details of this trigger. A short rail above the receiver has a mount for telescopic sights and most Eastern/Western European night vision sights, but the WKW II has no iron sights. The standard telescopic sight in Polish use is a Schmidt & Bender 3-12x P/Mil scope with an illuminated reticle.

A smaller version, the Alex, has been developed from the Wilk. This fires .338 Lapua Magnum cartridge, and the entire rifle is scaled down accordingly. Though it is more a sniper rifle than an antimateriel rifle, it is included here for completeness. Like the Wilk, it is a bullpup rifle with an integral bipod adjustable for height and cant. Like the Wilk, the shoulder stock is adjustable for length of pull by spacers and has a padded butt. The cheekpiece is also adjustable. Two barrel lengths are available, 36.3 inches and 40.9 inches. The muzzle brakes on these versions are not as beefy as those of the Wilk.

The WKW is known as the Tor within Polish armed forces, while the .338 Lapua version is called the Bor.

Twilight 2000 Notes: The WKW II is not available in the Twilight 2000 timeline.

Merc 2000 Notes: The WKW II is available, but it is chambered for the 12.7mm Russian cartridge instead, and the figures for that caliber below apply only to the Merc 2000 timeline. The Alex does not exist in the Merc 2000 timeline.

Weapon	Ammunition	Weight	Magazines	Price
WKW II	.50 Browning Machinegun	15.92 kg	7	$8023
WKW II (M2K)	12.7mm Russian	16.33 kg	7	$8447
Alex (Short)	.338 Lapua Magnum	7.3 kg	10	$3483
Alex (Long)	.338 Lapua Magnum	7.44 kg	10	$3606

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
WKW II	BA	9	2-3-4	10	3	Nil	138
With Bipod	BA	9	2-3-4	10	1	Nil	180
WKW II (M2K)	BA	9	2-3-4	10	3	Nil	129
With Bipod	BA	9	2-3-4	10	1	Nil	168
Alex (Short)	BA	6	1-3-Nil	9	3	Nil	154
With Bipod	BA	6	1-3-Nil	9	1	Nil	201
Alex (Long)	BA	7	1-3-5	9	3	Nil	171
With Bipod	BA	7	1-3-5	9	1	Nil	223

Degtyaryov PTRD

Notes: This is a very simple heavy rifle designed around the 14.5mm KPV round. Recoil was partially absorbed by allowing the barrel to recoil into the stock on a cam, but it was still very stiff. The camming also automatically unlocked the breech and opened it. Today, these weapons are collectors' or museum pieces.

Weapon	Ammunition	Weight	Magazines	Price
PTRD	14.5mm KPV	17.3 kg	1 Internal	$2738

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
PTRD	SS	11	2-2-3	13	6	Nil	222
PTRD (Bipod)	SS	11	2-2-3	13	3	Nil	284
PTRD (AP Ammo)	SS	11	1-1-1	13	6	Nil	267
PTRD (AP, Bipod)	SS	11	1-1-1	13	3	Nil	341

KBI OSV-96

Notes: This Russian design looks similar to the PTRS-41 antitank rifle of World War 2 fame, but in fact owes nothing to that weapon's design. The V-94 is billed as an anti-materiel rifle; the Russians feel that such a cartridge is better used against hard targets rather than personnel. There are in fact two versions of the rifle now known as the V-94; the earlier V-94 uses a fixed stock of a different shape than the OSV-96 and cannot be folded, while the OSV-96 can be folded at the junction of the barrel and receiver. The OSV-96 is also equipped with a carrying handle mounted at what is the center of gravity of the rifle when it is folded; the V-94 has no carrying handle. The OSV-96's mounts are designed for different telescopic sights and night vision devices than what the V-94's mounts are designed to take. In both cases, the rifles may take several different scopes and night vision equipment, though the Russians have not yet been too specific about those possible devices and scopes, and they have never exported either rifle. It is known, however, that the OSV-96 seems to normally use either a 13x variant of the old PSO-1 telescopic sight or the newer POS 12x50 scope; both have illuminated reticles. The OSV-96 also has been seen fitted with a PKN-05 night vision telescopic sight.

In both cases, the V-94 and OSV-96 use a very long heavy steel 40.1-inch barrel, tipped with a huge multi-baffle muzzle brake. While the muzzle brake is quite effective at reducing felt recoil, it also produces an incredible amount of muzzle blast and flash (despite the manufacturer's claim that the muzzle brake also functions as an effective flash suppressor); this one of the common complaints of snipers using these rifles in Chechnya, because when they are fired, the sniper team's position is almost always immediately spotted. Another big complaint of Russian snipers is the sheer size of the rifles; the OSV-96 is an incredible 67 inches long; the OSV-96, even when folded, is still 43.3 inches long. (As one Russian sniper is reputed to have said, "Try stuffing that monster in a small helicopter!") The snipers also say the V-94 and OSV-96 are simply fragile due to their spindly construction, especially in the long barrel and lightweight bipod. The V-94 is issued to airborne troops, who likewise find it large and unwieldy during drops. The action is semiautomatic and gas operated. The stock has a thick rubber recoil pad, but is not adjustable in any way. The long barrel is quite conducive to accuracy, but the real limiting factor is the poor quality of the typical 12.7mm Russian round itself. Russian snipers normally use the B-32 API round, which is better than the average 12.7mm Russian API round, but still no match in quality to even the typical .50 Browning Machinegun round.

Twilight 2000 Notes: There were perhaps 20 of these rifles already built before the Twilight War, though about 10 times that many were built during the conflict. All of these were V-94s; the OSV-96 does not exist in the Twilight 2000 timeline. (Russian Airborne, Air Assault, and special operations troops don't use the V-94 if they can avoid it; they prefer the Czech ZVI OP-96 Falcon).

Merc 2000 Notes: The V-94 never matched up to sales of Western rifles of the same general caliber. The OSV-96 has never been exported in the Merc 2000 timeline.

Weapon	Ammunition	Weight	Magazines	Price
V-94	12.7mm Russian	12.2 kg	5	$6384
OSV-96	12.7mm Russian	11.66 kg	5	$6414

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
V-94	SA	9	2-3-4	13	3	Nil	158
(With Bipod)	SA	9	2-3-4	13	1	Nil	206
OSV-96	SA	9	2-3-4	8/13*	3	Nil	158
(With Bipod)	SA	9	2-3-4	8/13*	1	Nil	206

*Though the OSV-96 will fold to a bulk of 8 for transportation, it CANNOT be fired when folded!

KBP VM-2000

Notes: The VM-2000 was a part of the same competition that produced the ASVK. The VM-2000 is also a bullpup-pattern rifle, with a 1-meter-long heavy free-floating barrel and a magazine well at nearly the end of the buttstock. The stock has a thick rubber ventilated recoil pad, and can be adjusted to the shooter to a limited degree. The VM-2000 was judged to be more accurate than the ASVK, but is also heavier with the heavy-gauge barrel and larger multibaffle muzzle brake. The VM-2000 also has internal compensators in its mechanism to further tame recoil. The VM-2000 can have its magazine topped off while the magazine remains in

the weapon, or single rounds fed directly into the chamber for each shot.

It is possible that versions of the VM-2000 were chambered for 12.7mm and 14.5mm ammunition, but this could be Internet confusion as well – the VM-2000 was definitely chambered for the 12.7mm cartridge, but a few sources have it chambered in 14.5mm as well. (I'll include both below, but I'm skeptical about the VM-2000 being chambered in 14.5mm; the competition which produced the VM-2000 was for a 12.7mm rifle and it takes very rare special, expensive ammunition to produce the accuracy needed for an antimateriel or sniper rifle with a 14.5mm KPV cartridge.) In any event, only ten of these rifles are confirmed to have been produced as far as is known, and their disposition is not known. The reason they were rejected for service in favor of the ASVK is believed to be political rather than due to the technical aspects of the VM-2000. My stat work seems to show the VM-2000 to be the superior rifle, but that is only a game mechanic, so take it with a grain of salt.

Twilight 2000 Notes: The VM-2000 does not exist in the Twilight 2000 timeline.

Weapon	Ammunition	Weight	Magazines	Price
VM-2000	12.7mm Russian	12.3 kg	5	$6461
VM-2000	14.5mm KPV	15.9 kg	5	$8085

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
VM-2000 (12.7mm)	SA	10	2-2-3	12	2	Nil	166
(With Bipod)	SA	10	2-2-3	12	1	Nil	211
VM-2000 (14.5mm)	SA	11	2-2-3	13	3	Nil	172
(With Bipod)	SA	11	2-2-3	13	2	Nil	219

Kovrov ASVK

Notes: This weapon, born of street fighting in Chechnya in the 1990s, is more or less a bullpup version of an experimental heavy-caliber model of the SV-98. This rifle was originally known as the SVN-98, then the KSVK, and is now called the ASVK in its military service configuration, and has little resemblance any more to the SV-98.

The ASVK was designed for special operations use for countersniper work after experience in Chechnya, and is meant to be able to shoot through heavy brick, cinder block, concrete, and other such materials. One of the most noticeable features of the KSVK is its massive muzzle brake at the end of its 1-meter barrel; originally a huge pepperpot-style device, it is now a large multi-baffle device on the ASVK that also works as a low-efficiency suppressor and muzzle-blast reducer. It has the typically Russian-style scope bracket on the right side of the receiver, and has folding backup iron sights.

Operation is a bit unusual due to the bullpup layout and size of the ASVK. The bolt uses an extension that makes its manual operation easier with the bullpup configuration; the primary cocking handle is just ahead of the trigger guard and points downward, though it otherwise operates normally. A secondary cocking handle is found just ahead of the magazine well, used when clearing the weapon for maintenance. The ASVK is built primarily of a light, strong steel alloy, except for a rubber cheekpiece and a rubber recoil pad. The bipod is underneath the operating rod; it is adjustable for height and cant. It is not removable, but folds forward. A carrying handle is found at the center of balance.

Twilight 2000 Notes: Though a rare weapon, the ASVK could be found during the Twilight War (production continued during the war at a very low rate). However, if you did encounter one, it usually meant you were up against Russian special ops units; they very jealously guarded their ASVKs.

Weapon	Ammunition	Weight	Magazines	Price
AVSK	12.7mm Russian	12 kg	5	$6409

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
ASVK	SA	9	2-3-4	9	3	Nil	142
With Bipod	SA	9	2-3-4	9	1	Nil	185

Simonov PTRS

Notes: This was one of two 14.5mm antitank rifles employed by the Soviets in World War 2 (the other being the PTRD, above). It used a complex semiautomatic action that made the weapon easier to fire and absorbed some of the massive recoil, but also made the design much more complex than the PTRD and, since it was longer, it was more fragile. They were removed from service after World War 2, except in certain specialist sniping riles, but none are in service today.

Twilight 2000 Notes: This weapon reappeared in the hands of snipers in Category III and Mobilization-Only units during the Twilight War. In addition, some were also used in Africa and by Vietnam.

Weapon	Ammunition	Weight	Magazines	Price
PTRS	14.5mm KPV	20.86 kg	5 Clip	$8047

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
PTRS	SA	11	2-2-3	14	5	Nil	220
PTRS (Bipod)	SA	11	2-2-3	14	3	Nil	282
PTRS (AP Ammo)	SA	11	1-1-1	14	5	Nil	265

PTRS (AP, Bipod)	SA	11	1-1-1	14	3	Nil	339

TsKIB SOO OTs-44

Notes: Related both to the VM-2000 (above) and the VSK (Russian Sniper Rifles), design cues were also taken from an experimental assault rifle called the OTs-03. The OTs-44 beings together a shorter 750-millimeter barrel and a full-barrel-length heavy-duty suppressor; according to company literature, a shot from the OTs-44 cannot be heard from more than 30 meters, but the Russians are prone to exaggeration. While the suppressor is large and beefy, the 12.7mm Russian cartridge is very powerful. Perhaps TopWar.ru has a better take on this, reporting that the suppressor quiets the report to that of an SVD Dragunov sniper rifle. I have included lines in the stats for hypothetical subsonic 12.7mm Russian ammunition, this is basically covering my bases, as I have not been able to find out whether there is such a thing as 12.7mm Russian Subsonic ammunition. (The Russians have come up with shorter-cased subsonic 12.7mm ammunition, but this is not what the OTs-44 fires.) The purpose of the OTs-44 appears to be an attempt to not destroy the hearing of its snipers rather than clandestine operation. The OTs-44 has a foam rubber recoil pad on the butt to ease the pain of firing. The OTS-44 uses a recoil spring and buffer similar in concept (if not execution) to that of the AR series, with the spring and buffer using a tube at the top of the stock above where the shooter puts his shoulder. The magazine is contained in the buttstock, but due to the design it can be difficult to insert into the stock magazine well.

Weapon	Ammunition	Weight	Magazines	Price
OTs-44	12.7mm Russian	14 kg	8	$6935

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
OTs-44	SA	7	2-4-6	14	3	Nil	135
(With Bipod)	SA	7	2-4-6	14	2	Nil	172
OTs-44 (Subsonic Ammunition)	SA	5	2-3-Nil	14	2	Nil	89
(With Bipod)	SA	5	2-3-Nil	14	1	Nil	112

Alpimex APK

Notes: The APK antimateriel rifles are a pair of weapons in different calibers and designed for equipment destruction, EOD use, and long-range sniping. The APK is a single-shot rifle using a falling-block action, actuated by a lever on the side of the rifle. (This lever can be moved to accommodate left and right-handed shooters.) The rifle uses a semi-bullpup design, with a loading ramp underneath the rifle and a pistol grip/trigger group in front of the loading ramp. The APK has no receiver as such; instead, a round is inserted directly into the chamber where it is gripped by the rifle's mechanism just enough to allow the shooter to lock the action again. When the operating handle is worked again, the spent case simply falls out of the bottom of the rifle. The top of the rifle has a mount which may take both Eastern and NATO-type telescopic sights and night vision devices. The APK has no iron sights. On the barrel, near where is meets the mechanism, is a collar with a bipod mount. The stock is unusual for modern antimateriel rifles, being made of contoured walnut which is laminated and weatherproofed; the buttplate has a thick rubber recoil pad, and the stock includes a non-adjustable raised cheekpiece/comb. The heavy steel barrel is 36.2 inches long and tipped with large pepperpot-type muzzle brake.

There are actually two versions of the APK: The APK-20, chambered for the 20mm MG-151 cartridge, and the APK-12.7, chambered for .50 Browning Machinegun. Both are essentially identical, except for the lower weight of the APK-12.7 and being 1.2 inches shorter (though the barrel length is the same in both cases).

Twilight 2000 Notes: These rifles do not exist in the Twilight 2000 timeline.

Weapon	Ammunition	Weight	Magazines	Price
APK-20	20mm MG-151	14.7 kg	1 Internal	$8077
APK-12.7	.50 Browning Machinegun	10.39 kg	1 Internal	$4924

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
APK-20 (HEI)	SS	C1 B6	-4C	10	4	Nil	161
(With Bipod)	SS	C1 B6	-4C	10	2	Nil	209
APK-20 (SAPHEI)	SS	13	2/2/2/1*	10	4	Nil	177
(With Bipod)	SS	13	2/2/2/1*	10	2	Nil	230
APK-20 (HEI)	SS	13	4/4/3/2**	10	4	Nil	193
(With Bipod)	SS	13	4/4/3/2**	10	2	Nil	251
APK-12.7	SS	9	2-3-4	9	3	Nil	148
(With Bipod)	SS	9	2-3-4	9	2	Nil	192

*Penetration value of the SAPHEI round against personnel is 2-2-3.

**Penetration value of the HEI round against personnel is 1-1-2.

AMSD OM-50 Nemesis

Notes: One of the largest Swiss "small arms" in existence, the OM-50 was the brainchild of James Owens (a retired USMC officer), and Chris Movigliatti, a retired Swiss Army officer. They formed a new company in Switzerland, AMSD, to manufacture the Nemesis (and perhaps in the future, other weapons – the two reportedly have a slew of other ideas). The ideas for the Nemesis had been kicking around with the two for quite a while; as a result, the first prototype of the Nemesis appeared only 3 months after official design work began. The Nemesis features a modular design, allowing it to be customized to user needs or made in military, police, and civilian versions. Supposedly, the Nemesis is already being tested and possibly used by a number of agencies, but it did not enter low-rate production and sales until 2003.

Construction of the Nemesis is a mix of high-grade aircraft-quality aluminum (primarily in the receiver housing and some other exterior metalwork) and high-grade steel. The stock is sort of skeletonized, but highly adjustable, including an adjustable, padded cheekpiece (adjustable for height and angle), and an adjustable buttplate with a recoil pad (adjustable for length, height, and to a small extent, angle). Mk 1 stocks are otherwise fixed, but Mk II and Mk III stocks are side-folding. Barrels are easily changed and may range from 15 to just under 33 inches, and may be swapped out as necessary for the tactical situation or local laws. (A barrel change takes about 2 minutes and requires a flat-head screwdriver or an equivalent). The barrel locks directly onto the barrel extension, and is otherwise free-floating. The standard muzzle attachment is a high-efficiency muzzle brake, but threading at the muzzle allows for many other muzzle attachments. The trigger unit is fully adjustable (length of pull, pull weight, and angle) and is two-stage. The top of the receiver has a MIL-STD-1913 rail. No iron sights are provided as standard.

The Mk I configuration is intended primarily for civilian shooters; it is a bolt-action single-shot rifle with (other than mentioned above) a "basic" configuration. It can easily be converted to the Mk II configuration, which gives it feed from a box magazine, a retractable monopod on the butt for long hides, a folding bipod adjustable for height and cant attached at the front of the handguard, and the side-folding stock. (The bipod can also be added to the Mk I configuration, though it is not normally sold with a Mk I rifle.) The Mk III is basically similar, but adds short MIL-STD-1913 rails to either side of the forward receiver, and special threading allowing the use of a suppressor in addition to other types of muzzle attachments. It can also fire special ammunition designed for use with a suppressor. The Mk II is quite similar to the Mk II for game purposes, except when firing with a suppressor; in addition, a kit allows the top MIL-STD-1913 receiver to be extended nearly to the muzzle.

Twilight 2000 Notes: The Nemesis does not exist in the Twilight 2000 timeline.

Weapon	Ammunition	Weight	Magazines	Price
OM-50 Nemesis Mk I (15" Barrel)	.50 Browning Machinegun	10 kg	1 Internal	$4134
OM-50 Nemesis Mk I (16" Barrel)	.50 Browning Machinegun	10.03 kg	1 Internal	$4166
OM-50 Nemesis Mk I (18" Barrel)	.50 Browning Machinegun	10.12 kg	1 Internal	$4206
OM-50 Nemesis Mk I (22" Barrel)	.50 Browning Machinegun	10.28 kg	1 Internal	$4630
OM-50 Nemesis Mk I (28" Barrel)	.50 Browning Machinegun	10.52 kg	1 Internal	$4590
OM-50 Nemesis Mk I (33" Barrel)	.50 Browning Machinegun	10.65 kg	1 Internal	$4715
OM-50 Nemesis Mk III (15" Barrel)	.50 Browning Machinegun	11.6 kg	5	$7523
OM-50 Nemesis Mk III (16" Barrel)	.50 Browning Machinegun	11.64 kg	5	$7555
OM-50 Nemesis Mk III (18" Barrel)	.50 Browning Machinegun	11.75 kg	5	$7598
OM-50 Nemesis Mk III (22" Barrel)	.50 Browning Machinegun	11.94 kg	5	$7757
OM-50 Nemesis Mk III (28" Barrel)	.50 Browning Machinegun	12.12 kg	5	$7996
OM-50 Nemesis Mk III (33" Barrel)	.50 Browning Machinegun	12.27 kg	5	$8128

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range

OM-50 Nemesis Mk I (15")	SS	8	2-3-4	9	3	Nil	52
OM-50 Nemesis Mk I (16")	SS	8	2-3-4	9	3	Nil	57
OM-50 Nemesis Mk I (18")	SS	8	2-3-4	9	3	Nil	64
OM-50 Nemesis Mk I (22")	SS	8	2-3-4	10	3	Nil	91
OM-50 Nemesis Mk I (28")	SS	9	2-3-4	11	3	Nil	135
OM-50 Nemesis Mk I (33")	SS	9	2-3-4	12	3	Nil	160
OM-50 Nemesis Mk II (15")	SA	8	2-3-4	7/9	3	Nil	52
With Bipod	SA	8	2-3-4	7/9	1	Nil	63
OM-50 Nemesis Mk II (16")	SA	8	2-3-4	8/9	3	Nil	57
With Bipod	SA	8	2-3-4	8/9	1	Nil	70
OM-50 Nemesis Mk II (18")	SA	8	2-3-4	8/9	3	Nil	64
With Bipod	SA	8	2-3-4	8/9	1	Nil	79
OM-50 Nemesis Mk II (22")	SA	8	2-3-4	9/10	3	Nil	91
With Bipod	SA	8	2-3-4	9/10	1	Nil	114
OM-50 Nemesis Mk II (28")	SA	9	2-3-4	10/11	3	Nil	135
With Bipod	SA	9	2-3-4	10/11	1	Nil	171
OM-50 Nemesis Mk II (33")	SA	9	2-3-4	11/12	3	Nil	160
With Bipod	SA	9	2-3-4	11/12	1	Nil	204
OM-50 Nemesis Mk III (15", Suppressed)	SA	6	2-3-Nil	10/12	3	Nil	42
With Bipod	SA	6	2-3-Nil	10/12	1	Nil	51
OM-50 Nemesis Mk III (16", Suppressed)	SA	6	2-4-Nil	11/12	3	Nil	45
With Bipod	SA	6	2-4-Nil	11/12	2	Nil	55
OM-50 Nemesis Mk III (18", Suppressed)	SA	6	2-4-Nil	11/12	3	Nil	47
With Bipod	SA	6	2-4-Nil	11/12	2	Nil	57
OM-50 Nemesis Mk III (22", Suppressed)	SA	6	2-4-Nil	12/13	3	Nil	55
With Bipod	SA	6	2-4-Nil	12/13	2	Nil	68
OM-50 Nemesis Mk III (28", Suppressed)	SA	7	2-4-Nil	13/14	3	Nil	68
With Bipod	SA	7	2-4-Nil	13/14	2	Nil	85

OM-50 Nemesis Mk III (33", Suppressed)	SA	7	2-4-Nil	14/15	3	Nil	70
With Bipod	SA	7	2-4-Nil	14/15	2	Nil	94

Tasko Antimateriel Rifle

Notes: One of the newest antimateriel rifles on the scene, the Tasko was introduced in late 2005. (I have not been able to ascertain the actual designation of the rifle.) Due to it's chambering, it appears to be designed primarily for domestic use, but has been offered for export; the rumor mill says that the Ukrainians are considering a .50 Browning Machinegun version, but that this chambering is not yet even on the drawing board.

The Tasko is a gas-operated semiautomatic weapon of excellent construction considering the normal sort of construction quality one normally expects from the former Soviet republics. The 30.6-inch heavy barrel is built from high-grade steel and the cutting of the rifling is computer-controlled to a very fine degree, as is the making of most of the Tasko's parts, and thus they are precision-made to very high tolerances. The barrel is tipped with a large 3-baffle muzzle brake. The metalwork of the rifle is also of high-grade steel. Two stocks are available: a single-strut folding light stock with a padded buttplate adjustable for length of pull and a rudimentary padded cheekpiece, and a conventional wooden stock with a padded buttplate adjustable for length of pull and for height, as well as an adjustable cheekpiece which has no padding in this case. With both stocks, the padding on the buttplate is rather thin and may not actually do much to help with felt recoil. The forward end of the receiver has a folding bipod which is adjustable for height (although early examples used a non-adjustable bipod). The receiver also has a folding carrying handle attached at the center of balance for the rifle. Though the receiver does not have any sort of fancy MIL-STD-1913 or Weaver rail, it is nonetheless capable of mounting most telescopic sights and night vision devices used in the world today, though of course it is optimized for use with Russian-type sights. No iron sights are used.

Twilight 2000 Notes: This rifle does not exist in the Twilight 2000 timeline.

Weapon	Ammunition	Weight	Magazines	Price
Tasko AM Rifle (Folding Stock)	12.7mm Russian	12.02 kg	5, 10	$6038
Tasko AM Rifle (Standard Stock)	12.7mm Russian	12.18 kg	5, 10	$6008

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
Tasko AM Rifle (Folding Stock)	SA	9	2-3-4	10/12	3	Nil	109
(With Bipod)	SA	9	2-3-4	10/12	2	Nil	141
Tasko AM Rifle (Standard Stock)	SA	9	2-3-4	12	3	Nil	109
(With Bipod)	SA	9	2-3-4	12	2	Nil	141

Anzio Ironworks Heavy Rifles

Notes: Anzio Ironworks makes a number of heavy-caliber rifles, primarily for civilian long-range shooting matches. Their rifles range from single-shot .50 Browning machinegun rifles to heavy repeating 20mm antimateriel rifles firing modified 20mm Vulcan shells modified for primer ignition. They are built primarily from heavy-gauge, high-strength steel, and light alloys or even plastic where possible. Buttstocks are typically simple, with steel or alloy-strut stocks and padded buttplates. Barrels are tipped with large multi-chamber muzzle brakes. Most models can be had in left-handed and right-handed models, as they are almost all bolt-action, and some are of bullpup design. Most are equipped with a folding Harris bipod adjustable for height and cant. The rifles may be finished in natural metal, black, or a variety of camouflage patterns. The top of the receiver holds a MIL-STD-1913 rail for the mounting of optics on a slightly-raised mount.

The base of these rifles is the Single-Shot 50. These typically consist of a light alloy tube in which the barrel is contained – this barrel may be a standard 18 or 26-inch barrel or a target-quality Lothar Walther barrel of the same length. They are typically equipped with a bipod below the front of the aluminum handguards.

The Take-Down Competition 50 is a variant of the Single-Shot 50. It is typically equipped with a 30-inch Supermatch Chrome-Moly 30” barrel, though 18” and 26” barrels are available. The barrel is free-floating. The receiver is all-steel, and the barrel can be easily removed from the weapon and replaced without losing zero. The trigger is match-quality. The firing pin is titanium. Finishes on the receiver/stock are limited to green and black, with a Duracoat finish. These rifles are not typically sold with bipods.

The Anzio 50 is a repeating version of the Single-Shot 50. The Anzio 50 has an all-steel receiver; indeed, most parts are of high-strength steel. The barrel is a Lothar Walther match-quality free-floating rifle; the stock is similar to the Single-Shot 50, being a thick tube with a skeletonized buttstock with a rubber recoil pad. The muzzle brake is different, being a long tubular design instead of the wedge-shaped muzzle brake of the Single-Shot 50. The trigger pack is match-quality. Magazines are unfortunately small, in keeping with the primary purpose as a civilian weapon. The Super Lightweight 50 is, as the name would indicate, a lighter version of this rifle; the receiver and stock are of light alloy, the muzzle brake of titanium, and some use of polymers is made. An additional barrel length is offered. The Takedown Lightweight 50 is again similar to the Super Lightweight 50, except for the quick-remove barrel (which is fluted in this case), the conventional (for an Anzio heavy rifle) wedge-shaped muzzle brake, and the lack of a standard bipod.

The Anzio 20/50 is chambered to fire a .50 Browning machinegun bullet from a 20mm case, which is cut-down 20mm Vulcan case. The result is essentially a .50-caliber magnum rifle. The resulting is utterly massive, weighing in rather heavy and with the barrels (a choice of three lengths) being tipped by a huge, conical muzzle brake. Though it would seem to have rather limited utility, the FBI has in fact invested in five of the repeating versions for evaluation; with an eye towards heavy counterterrorist work. The barrel is heavy and can be removed to create a takedown rifle. A bipod is found at the front of the handguards at the point of balance. This rifle is available as a single-shot rifle or as a magazine-fed repeater.

The Anzio 20 comes in three versions: a single-shot takedown rifle, a single-shot standard rifle, and a magazine-fed rifle. The single-shot and magazine-fed rifles can be had in 20mm, 14.5mm KPV, and 20/50 Anzio. The 20mm round used with these rifles is a version of the 20mm Vulcan round which uses a heavy primer instead of electrical ignition. The single-shot takedown rifle uses a heavy 50-inch barrel with a massive muzzle brake and can be tripod or pintle-mounted (and the pintle can be mounted on a fifth-wheel mounted in a pickup truck bed); the single shot and magazine-fed rifles (which are variants of each other) use a 49-inch heavy barrel with the same muzzle brake, and use beefy bipods. Although three are massive brutes of rifles, longer than the average man is tall. The FBI is also reputedly experimenting with the 20mm magazine-fed version. The 20mm Vulcan round versions below have explosive damage ratings for HEI and SAPHEI and penetration ratings for API and SAPHEI that reflect antipersonnel (anti-vehicle) penetration ratings. The SAPHEI has ratings for a direct antipersonnel hit as well as explosive damage.

Twilight 2000 Notes: These rifles do not exist in the Twilight 2000 timeline.

Weapon	Ammunition	Weight	Magazines	Price
Single Shot 50 (18” Barrel)	.50 Browning Machinegun	7.71 kg	1 Internal	$4402
Single Shot 50 (26” Barrel)	.50 Browning Machinegun	10.43 kg	1 Internal	$4671
Single Shot 50 (18” Target Barrel)	.50 Browning Machinegun	7.74 kg	1 Internal	$4417
Single Shot 50 (26” Target Barrel)	.50 Browning Machinegun	10.5 kg	1 Internal	$4692
Take-Down Competition (18” Barrel)	.50 Browning Machinegun	6.13 kg	1 Internal	$4401
Take-Down Competition (26” Barrel)	.50 Browning Machinegun	9.1 kg	1 Internal	$4676
Take-Down Competition (30” Barrel)	.50 Browning Machinegun	9.3 kg	1 Internal	$4814
Anzio 50 (18” Barrel)	.50 Browning Machinegun	8.16 kg	3, 5	$7570
Anzio 50 (26” Barrel)	.50 Browning Machinegun	10.89 kg	3, 5	$7754
Super Lightweight 50 (18” Barrel)	.50 Browning Machinegun	6.12 kg	3, 5	$7604
Super Lightweight 50 (22” Barrel)	.50 Browning Machinegun	7.15 kg	3, 5	$7742
Super Lightweight 50 (26” Barrel)	.50 Browning Machinegun	8.17 kg	3, 5	$7880
Takedown Lightweight 50 (18” Barrel)	.50 Browning Machinegun	5.48 kg	3, 5	$7635
Takedown Lightweight 50 (22” Barrel)	.50 Browning Machinegun	6.4 kg	3, 5	$7773
Takedown Lightweight 50 (26” Barrel)	.50 Browning Machinegun	7.31 kg	3, 5	$7911
Takedown Lightweight 50 (30” Barrel)	.50 Browning Machinegun	7.47 kg	3, 5	$8048
Anzio 20/50 Single-Shot (36” Barrel)	20/50 Anzio	19.96 kg	1 Internal	$5211
Anzio 20/50 Single-Shot (40” Barrel)	20/50 Anzio	20.31 kg	1 Internal	$5269
Anzio 20/50 Single-Shot (45” Barrel)	20/50 Anzio	20.7 kg	1 Internal	$5513

Anzio 20/50 Repeater (36” Barrel)	20/50 Anzio	28.34 kg	3	$8414
Anzio 20/50 Repeater (40” Barrel)	20/50 Anzio	28.84 kg	3	$8549
Anzio 20/50 Repeater (45” Barrel)	20/50 Anzio	29.48 kg	3	$8716
Anzio 20 Takedown	20mm Vulcan	17.69 kg	1 Internal	$10312
Anzio 20 Single-Shot	20/50 Anzio	21.5 kg	1 Internal	$5542
Anzio 20 Single-Shot	14.5mm KPV	24.56 kg	1 Internal	$6904
Anzio 20 Single-Shot	20mm Vulcan	32.21 kg	1 Internal	$10246
Anzio 20 Repeater	20/50 Anzio	26.76 kg	3	$8744
Anzio 20 Repeater	14.5mm KPV	30.57 kg	3	$11384
Anzio 20 Repeater	20mm Vulcan	40.09 kg	3	$17802

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
Single Shot 50 (18”)	SS	8	2-3-4	7	3	Nil	52
With Bipod	SS	8	2-3-4	7	2	Nil	68
Single Shot 50 (26”)	SS	9	2-3-4	9	3	Nil	99
With Bipod	SS	9	2-3-4	9	1	Nil	128
Single Shot 50 (18” Target)	SS	8	2-3-4	7	3	Nil	55
With Bipod	SS	8	2-3-4	7	2	Nil	71
Single Shot 50 (26” Target)	SS	9	2-3-4	9	3	Nil	102
With Bipod	SS	9	2-3-4	9	1	Nil	133
Take-Down Competition (18”)	SS	8	2-3-4	7*	3	Nil	55
Take-Down Competition (26”)	SS	9	2-3-4	9*	3	Nil	102
Take-Down Competition (30”)	SS	9	2-3-4	9*	3	Nil	128
Anzio 50 (18” Barrel)	BA	8	2-3-4	9	3	Nil	55
With Bipod	BA	8	2-3-4	9	2	Nil	71
Anzio 50 (26” Barrel)	BA	9	2-3-4	11	3	Nil	102
With Bipod	BA	9	2-3-4	11	1	Nil	133
Anzio 50 (18” Barrel)	BA	8	2-3-4	9	3	Nil	55
With Bipod	BA	8	2-3-4	9	2	Nil	71
Anzio 50 (22” Barrel)	BA	8	2-3-4	10	3	Nil	78
With Bipod	BA	8	2-3-4	10	2	Nil	101
Anzio 50 (26” Barrel)	BA	9	2-3-4	11	3	Nil	102
With Bipod	BA	9	2-3-4	11	2	Nil	133
Takedown Lightweight (18”)	BA	8	2-3-4	9*	3	Nil	55
Takedown Lightweight (22”)	BA	8	2-3-4	10*	3	Nil	78
Takedown Lightweight (26”)	BA	9	2-3-4	11*	3	Nil	102
Takedown Lightweight (30”)	BA	9	2-3-4	12*	3	Nil	128
Anzio 20/50 Single-Shot (36”)	SS	10	1-2-3	10*	3	Nil	190
With Bipod	SS	10	1-2-3	10*	1	Nil	247
Anzio 20/50 Single-Shot (40”)	SS	10	1-2-3	10*	3	Nil	222
With Bipod	SS	10	1-2-3	10*	1	Nil	289
Anzio 20/50 Single-Shot (45”)	SS	11	1-1-1	12*	3	Nil	264
With Bipod	SS	11	1-1-1	12*	2	Nil	343
Anzio 20/50 Repeating (36”)	BA	10	1-2-3	13*	3	Nil	190
With Bipod	BA	10	1-2-3	13*	1	Nil	247
Anzio 20/50 Repeating (40”)	BA	10	1-2-3	13*	3	Nil	222
With Bipod	BA	10	1-2-3	13*	1	Nil	289
Anzio 20/50 Repeating (45”)	BA	11	1-1-1	14*	3	Nil	264
With Bipod	BA	11	1-1-1	14*	2	Nil	343
Anzio 20 Takedown (API)	SS	15	2-2-2 (2/2/2/1)	14*	4	Nil	283
With Bipod	SS	15	2-2-2 (2/2/2/1)	14*	2	Nil	368
With Tripod	SS	15	2-2-2 (2/2/2/1)	14*	1	Nil	566
Anzio 20 Takedown (HEI)	SS	C1 B5	Nil	14*	4	Nil	212
With Bipod	SS	C1 B5	Nil	14*	2	Nil	276

With Tripod	SS	C1 B5	Nil	14*	1	Nil	425
Anzio 20 Takedown (SAPHEI)	SS	14 + C1 B3	2-2-3 (2/2/1/1)	14*	4	Nil	248
With Bipod	SS	14 + C1 B3	2-2-3 (2/2/1/1)	14*	2	Nil	322
With Tripod	SS	14 + C1 B3	2-2-3 (2/2/1/1)	14*	1	Nil	496
Anzio 20 Single-Shot (20/50 Anzio)	SS	11	1-1-1	13	3	Nil	296
With Bipod	SS	11	1-1-1	13	2	Nil	385
Anzio 20 Single-Shot (14.5mm)	SS	11	2-2-3	13	3	Nil	250
With Bipod	SS	11	2-2-3	13	2	Nil	325
Anzio 20 Single-Shot (20mm, API)	SS	15	2-2-2 (2/2/1/1)	14	4	Nil	278
With Bipod	SS	15	2-2-2 (2/2/1/1)	14	2	Nil	361
Anzio 20 Single-Shot (20mm, HEI)	SS	C1 B5	Nil	14	4	Nil	209
With Bipod	SS	C1 B5	Nil	14	2	Nil	271
Anzio 20 Single-Shot (20mm, SAPHEI)	SS	14 + C1 B3	2-2-3 (2/2/1/1)	14	4	Nil	244
With Bipod	SS	14 + C1 B3	2-2-3 (2/2/1/1)	14	2	Nil	316
Anzio 20 Repeating (20/50 Anzio)	BA	11	1-1-1	15	3	Nil	296
With Bipod	BA	11	1-1-1	15	1	Nil	385
Anzio 20 Repeating (14.5mm)	BA	11	2-2-3	16	3	Nil	250
With Bipod	BA	11	2-2-3	16	1	Nil	325
Anzio 20 Repeating (20mm, API)	BA	15	2-2-2 (2/2/1/1)	17	3	Nil	278
With Bipod	BA	15	2-2-2 (2/2/1/1)	17	1	Nil	361
Anzio 20 Repeating (20mm, HEI)	BA	C1 B5	Nil	17	3	Nil	209
With Bipod	BA	C1 B5	Nil	17	1	Nil	271
Anzio 20 Repeating (20mm, SAPHEI)	BA	14 + C1 B3	2-2-3 (2/2/1/1)	17	3	Nil	244
With Bipod	BA	14 + C1 B3	2-2-3 (2/2/1/1)	17	1	Nil	316

*These rifles may halve their bulk rating (rounded up) if taken down, but they **cannot** be fired in this condition!

Armalite AR50

Notes: This weapon was designed by Armalite primarily for the civilian large-caliber enthusiast, but was employed on a limited basis by military forces due to its long range and stability. The AR50 uses a number of tried-and-true principles and components from other rifles and systems, such as Armalite's own rifles, Sako, Barrett, and some others. The AR50 is quite lightweight for its large size.

The AR50 uses a unique octagonal receiver, bedded into the stock with a solid aircraft aluminum bedding block. The single-shot bolt action uses a bolt handle with a lift of only 60 degrees and a short throw, to enable follow-up shots that are as quick as possible for a single-shot rifle. The extractor is a spring-loaded plunger-type which is essentially an enlarged version of a Sako extractor. The receiver and action can be had in right and left-handed versions. The heavy steel 31-inch barrel is tipped with a proprietary Armalite multi-baffle muzzle brake which is considered so effective, lightweight, and advanced in design that many other companies making heavy-caliber rifles have licensed the design of the muzzle brake, and many buyers have retrofitted their own heavy-caliber rifles with this brake. (Armalite calls this muzzle brake the "Multiflute Recoil Check.") The stock is aluminum alloy and skeletonized, with a large handle for the non-firing hand, and can be removed for transport (but not fired in this state). The buttplate and cheekpiece are padded and fully adjustable. The AR50 is equipped with a MIL-STD-1913 rail atop the receiver, but no iron sights are provided. The pistol grip is identical to that of an M16A2. A fully-adjustable folding bipod is provided, but the mount allows the installation of several alternate bipods if desired. Steel parts are Parkerized, while aluminum parts are hard-anodized.

The AR50A1 version improves on the AR50 platform. The barrel is shorter at 30 inches, but the barrel has been made free-floating. Almost half a kilogram has been shaved off of the weight. The AR50A1's buyer has the option of a Weaver rail in lieu of the MIL-STD-1913 rail, and the mounting of the rail had been even better stabilized than on the AR50. Special coatings have been added to improve operation of the bolt and trigger groups. The AR50A1 has a special buffer that further decreases the recoil, and adjustments in the receiver allow a right-handed version to be more easily fired by a left-handed shooter, and vice versa.

The AR50A1 NM is designed more with long-range competition and heavy-caliber enthusiasts in mind. The "NM" stands for "National Match," and many of the parts are specially fitted or specially modified for competition shooting. In fact, the entire chamber

is designed around .50 BMG Match ammunition instead of standard .50 BMG ammunition or even .50 BMG military sniping rounds. (The stats below use standard military .50 BMG ammunition.) The stock is redesigned; it is adjustable for cheek height and length of pull, and has a rubber recoil pad. More importantly, the bottom of the stock has been given a skid that allows the stock to be rested on the ground and it's non-slip surface keeps the stock in place; this obviates the need for a monopod, and provides a more solid platform than a monopod. The stock is highly skeletonized, with the bottom of the pistol grip even with the bottom of the skid. As with other AR50s, the AR50A1 NM's stock is removable for transport, and it can be interchanged with other AR50 stocks. The fluted, floating barrel is a full 33 inches and tipped with a beefy muzzle brake. Attachment of the barrel is by Armalite's patented V-Lock Bedding Wedge and V-Block Stock interface system, resulting in a very solid platform.

Twilight 2000 Notes: This weapon was the bane of both the good and bad guys, being used against government forces by civilians and by government militia against both MilGov and CivGov and against New America, in the Twilight 2000 timeline. These rifles were also used on a limited basis in other places in the world; Saudi Arabian sniper is believed to have made a shot with an AR50 against an Iraqi MRL gunner, at a range of nearly 2600 meters, causing the entire crew to surrender! The AR50A1 NM is not available in the Twilight 2000 timeline.

Weapon	Ammunition	Weight	Magazines	Price
AR50	.50 Browning Machinegun	15.42 kg	1 Internal	$4816
AR50A1	.50 Browning Machinegun	15.06 kg	1 Internal	$4889
AR50A1 NM	.50 Browning Machinegun	15.16 kg	1 Internal	$4948

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
AR50	SS	9	2-3-4	8/10*	3	Nil	130
With Bipod	SS	9	2-3-4	8/10*	1	Nil	169
AR50A1	SS	9	2-3-4	8/10*	2	Nil	128
With Bipod	SS	9	2-3-4	8/10*	1	Nil	167
AR50A1 NM	SS	9	2-3-4	8/10*	3	Nil	160
With Bipod	SS	9	2-3-4	8/10*	1	Nil	204

*When the stock is removed, the bulk of the AR50 and AR50A1 is reduced to 8; however, they CANNOT be fired with the stock removed.

Arms Tech TTR-50

Notes: This .50-caliber sniping rifle was designed with special operations and other clandestine operators in mind. It is bolt action heavy rifle that can be disassembled into a package the size of a small suitcase. (TTR stands for Tactical Takedown Rifle.) The TTR-50 is based on the McMillan series of antimateriel rifles, with their reliable action and ease of care. The TTR-50 has a collapsible stock, and has one more unusual feature: it is capable of mounting a suppressor.

Twilight 2000 Notes: This weapon does not exist.

Weapon	Ammunition	Weight	Magazines	Price
TTR-50	.50 Browning Machinegun	11.88 kg	5	$7625
TTR-50 (With Suppressor)	.50 Browning Machinegun	13.06 kg	5	$8441

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
TTR-50	BA	8	2-3-4	8/9	5	Nil	97
TTR-50 (Bipod)	BA	8	2-3-4	8/9	3	Nil	126
TTR-50 (Suppressed)	BA	6	2-4-Nil	9/10	4	Nil	83
TTR-50 (Suppressed, Bipod)	BA	6	2-4-Nil	9/10	2	Nil	108

Barrett M82A1

Notes: This is an American-made antimateriel and heavy sniping rifle used by both civilians and dozens of military forces throughout the world, including most of NATO. It was first designed for EOD teams to destroy explosives and for sharpshooters to destroy things like naval mines. It has since then been used for many purposes, in almost every corner of the globe. The weapon is recoil-operated, and has a massive muzzle brake to reduce felt recoil; this, along with the M82A1's use of recoil to operate the mechanism, reduces felt recoil to manageable proportions. Standard telescopic sight issued with the M82A1 is a 10x of several different manufactures. The barrel is of heavy steel and 29 inches long, and tipped with a large multi-baffle muzzle brake designed by Barrett. The bipod is adjustable for height and cant, and it also has an adapter which allows it to be mounted on any tripod or mount compatible with the M-60 machinegun.

Though the US Military has unofficially been using the M82A1 for almost two decades, it is only recently that the rifle has been type-standardized, first as the XM107, and then the M107 (the Marines and the Navy use the same rifle as the M107, but call it the M82A3, the few foreign users of the M107 generally call it the M82A1M). The M107 is nearly identical to the standard M82A1; however, there are some differences worth mentioning. The M107 is designed to be field stripped without using tools. The muzzle brake may be easily removed by the sniper and replaced with a sound suppressor. Atop the receiver is a 19-inch MIL-STD-1913 rail. The skeletonized stock has an actual handgrip on the bottom instead of a simple rod of metal, and attached to this handgrip is a

folding monopod to help support the weapon. The M107 has attachment points for mounting on any tripod or pintle mount able to accept an M-60 or M-240 machinegun. The finish is a bit more weatherproof, and the bipod is slightly different; it is a quick-release model with spiked feet. The M107 may also be mounted on a soft mount designed for the rifle, and/or vehicle-mounted on this soft-mount or, via an adapter, on any vehicle mount which can take a weapon designed for a medium or heavy machinegun or grenade launcher. The barrel is threaded at the muzzle; this allows the muzzle brake to be removed and replaced with other muzzle brakes, or even suppressors/silencers. The M107 is also over a full kilogram lighter than the M82A1. Military snipers recommend the use of the Mk 211 Raufoss cartridge, but the M107 may fire any sort of .50 Browning Machinegun cartridge except SLAP. For game purposes, it is otherwise identical to the M82A1.

A recent variant of the M107 is the M107CQ (Close Quarters). This is basically a shorter version of the M107, with a barrel nine inches shorter and much lighter than the standard M107. This variant is designed both for military users operating in MOUT situations or fighting from helicopters or vehicles, and for police snipers who do not need the kind of range that a full-sized M82A1 or M107 produces. The M107CQ is not an official US military variant, though it is believed to be extensively used by the US military.

Of course, the nomenclature, “M82A1,” would seem to indicate that there was an M82 before it; there in fact was. Barrett’s initial design was similar, but it used a 37-inch barrel with a heavier muzzle brake, and was fed by an 11-round magazine. Not only was the M82 incredibly unwieldy due to its length, it was heavier. (The range, however, was incredible.) Nonetheless, this was the design sold between 1985-87, although it sold only in small numbers, primarily to civilian large-caliber enthusiasts.

The M82A2 is a bullpup version of the M82A1 is lighter and somewhat simplified in operation. The shoulder rest is moved to behind the magazine, and the action passes over the firer's shoulder. A second pistol grip has been added behind the barrel for more stable hip firing. It is mostly a niche weapon for heavy-caliber rifle collectors, and does not see much use as a military or police weapon. The M82A2 cannot be used with a tripod mount.

The M90 was Barrett’s first attempt at a bolt-action bullpup version of the M82. It is basically a less-refined counterpart to the later M95, being a Barrett in bolt-action bullpup form with a different bipod, slightly different muzzle brake, and less tolerance to wear and dirt. Like the M82A2, the M90 cannot be used with a tripod mount. The M90 was basically a test rifle, with only a few being made, and these were primarily hand-made. The M90 served as a testbed for a design which later resulted in the M95; few M90s were built, and even fewer were allowed to be sold. It was not even put into LRIP, though US special operations did test it.

Barrett is now offering the M82A1 in their proprietary .416 Barrett cartridge, which not only makes for a slightly lighter weapon (not enough to express in *Twilight 2000* terms), but gives the M82A1 the advantages of the .416 Barrett round (and incidentally makes it California-legal). Configuration, other than the internal and external changes for the new caliber, is otherwise the same as the standard M82A1.

The Newest iteration of the M107, the M107A1, is a semi-radical redesign of the M107, concentrating upon reducing the weight, balance and profile of the weapon. This has been done through the use of liberal amounts of aluminum alloy (primarily in the handguards, Upper receiver, stock, and magazine well), lighter steel alloys, a fluted barrel, and polymer at some points, such as the knob of the charging handle, the bipod feet, the rear handgrip/stabilizer, and the cheekpiece. The recoil pad is, of course, thick rubber. These lightening measures reduce weight for the two variants by an average of 1.8 kilograms (and the exact numbers depend upon the variant). The buttplate is adjustable for LOP and the cheekpiece acts as a thermal protection piece for the cheek and face of the firer, as firing the M107A1 (like the rest of the Barrett M82 series) generates a lot of heat in the barrel, and receiver. The stock handgrip has a very short MIL-STD-1913 rail for the attachment of a balancing monopod or sling swivel. The bipod issued with the M107A1 is a lightened and modified form of the one used on the M60 and M240 machineguns; the bipod is made largely of titanium alloy and is both lighter and stronger, and can accept a variety of removable polymer feet. It has has adjustments for height and cant. (The sources I am using all say that the M107A1 has a magazine with a cartridge witness indicator, but I have been unable to find out what one is. Help with this is appreciated; email me using the address on the home page.) BUIS are provided, with a full-receiver-length MIL-STD-1913 rail (which is surprisingly long at 46 centimeters and adequate for just about any sort of optics). The barrel is of heavy-profile and uses seven flutes to lighten the barrel and increase cooling area for repeated shots. The bolt carrier is modified to that the recommended silencer/muzzle brake combination may be used without any adjustments; alternatively, a simple muzzle brake may be used or a different suppressor (with appropriate gas key adjustments). The muzzle brake, instead of the distinctive arrowhead-shaped muzzle brake used on the M82A1 and M107, the M107A1 uses a large multi-baffle cylindrical muzzle brake. This brake is not only just as efficient as the M107’s brake, but is easier and less expensive to construct. It can also be readily removed by the shooter, allowing him to remove the brake and replace it with a suppressor. The QDS Suppressor is a combination Suppressor tipped with a compact muzzle brake consisting of porting holes tipping the suppressor. The barrel is user-changeable between the 20-inch and 29-inch barrels, and the special Barrett-designed suppressor/muzzle brake (which is also the suppressing device approved by the US military) may be attached to either barrel. The bore, chamber, and barrel extension are fully chromed. Most of the rifle is coated in Cerekote – colored Black, Flat Dark Earth, OD Green, and Tungsten Gray. However, the barrel, bipod, charging handle, the rear handgrip, and the cheekpiece and controls are in black, and the special suppressor may only be had in Black or Flat Dark Earth. This is the current version of the M107 used by most of the US Armed Forces, as well as several allied nations. Though the first versions of the M107A1 may have appeared as early as 2008, it is only recently that the M107A1 has seen military type-standardization.

Twilight 2000 Notes: This weapon was used in so many places on the planet in the Twilight 2000 timeline that it was nearly ubiquitous, despite its small numbers. The M107 is not available in the Twilight 2000 timeline, nor is the M107CQ or M107A1; however, the addition of a MIL-STD-1913 rail and replacement of the bipod were common modifications done to M82A1’s used by the military in the Twilight 2000 timeline. The M82 version is slightly more common in the Twilight 2000 timeline than in the real world,

and is used by NATO in very small numbers, often with the addition of a MIL-STD-1913 rail and replacement bipod. No M82A1s are chambered for .416 Barrett in the Twilight 2000 timeline.

Weapon	Ammunition	Weight	Magazines	Price
M82	.50 Browning Machinegun	15.88 kg	11	$6021
M82A1	.50 Browning Machinegun	14.06 kg	10	$5755
M82A1	.416 Barrett	14.06 kg	10	$3862
M107	.50 Browning Machinegun	12.6 kg	10	$5787
M107CQ	.50 Browning Machinegun	10.75 kg	10	$5487
M82A2	.50 Browning Machinegun	12.24 kg	10	$5703
M90	.50 Browning Machinegun	11.18 kg	5	$7794
M107A1 (20" Barrel, w/Brake)	.50 Browning Machinegun	10.19 kg	10	$5511
M107A1 (20" Barrel, w/Suppressor/Brake)	.50 Browning Machinegun	12.4 kg	10	$6106
M107A1 (29" Barrel, w/Brake)	.50 Browning Machinegun	10.79 kg	10	$5814
M107A1 (29" Barrel, w/Suppressor/Brake)	.50 Browning Machinegun	13 kg	10	$6514
M107A1 QDL Suppressor/Brake	N/A	2.21 kg	N/A	$900

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
M82	SA	9	2-3-4	14	3	Nil	154
(With Bipod)	SA	9	2-3-4	14	1	Nil	201
M82A1/M107	SA	9	2-3-4	10	3	Nil	107
(With Bipod)	SA	9	2-3-4	10	1	Nil	139
(With Tripod)	SA	9	2-3-4	10	1	Nil	213
M82A1 (.416)	SA	8	1-2-3	10	2	Nil	125
(With Bipod)	SA	8	1-2-3	10	1	Nil	163
(With Tripod)	SA	8	1-2-3	10	1	Nil	250
M107CQ	SA	8	2-3-4	8	3	Nil	58
(With Bipod)	SA	8	2-3-4	8	2	Nil	75
(With Tripod)	SA	8	2-3-4	8	1	Nil	115
M82A2	SA	9	2-3-4	8	3	Nil	96
(With Bipod)	SA	9	2-3-4	8	2	Nil	125
M90	BA	9	2-3-4	7	4	Nil	105
(With Bipod)	BA	9	2-3-4	7	2	Nil	137
M107A1 (20", w/Brake)	SA	8	2-3-4	8	3	Nil	58
w/Bipod	SA	8	2-3-4	8	1	Nil	75
M107A1 (20", w/Suppressor/Brake)	SA	7	2-4-6	10	2	Nil	48
w/Bipod	SA	7	2-4-6	10	1	Nil	62
M107A1 (29", w/Brake)	SA	9	2-3-4	10	3	Nil	107
w/Bipod	SA	9	2-3-4	10	1	Nil	139
M107A1 (29", w/Suppressor/Brake)	SA	7	2-3-4	12	3	Nil	89
w/Bipod	SA	7	2-3-4	12	1	Nil	115

Barrett M95

Notes: The M95 is essentially more-developed version of the M90, and retains the bullpup design of the M90. Improvements over the M90 are primarily in the areas of ergonomics and resistance to wear and dirt, and in addition the muzzle brake is lighter and more compact yet just as effective. The M95 uses upper and lower receiver halves, with the lower receiver being of light aluminum alloy and the upper receiver being of steel. (For transport or field stripping, these halves may be separated by removing the two pins holding them together.) The barrel is 29 inches long and of heavy steel, equipped with the same muzzle brake as the M82A1. The bipod is also the same as that of the M82A1. The buttplate includes a Sorbothane recoil pad. The M95 is used not only by civilian collectors and long-range shooting enthusiasts; it is used by the military forces of 15 nations as well as police departments all over the US. The M95 has a 9-inch length of MIL-STD-1913 rail atop the receiver instead of the Weaver rail of the M90 (though early versions of the M95 still used the Weaver rail). The M95 can take the same magazine as the M90 or a larger magazine, the same as used on

other Barrett .50-caliber rifles able to use a ten-round magazine.

At one point (in 1999), the US Army had selected the M95 as its new antimateriel rifle, at that time preferring it over the M82A1. The M95 was even given the designation XM107. However, a change in operational policy on the part of the Defense Department, coupled with input from snipers and EOD teams who wanted a semiautomatic antimateriel rifle, led to the "XM107" designation being transferred back to the M82A1M design. Barrett gave the company designation of M95M to the militarized version of the M95; changes to the M95 included the installation of a 12-inch MIL-STD-1913 rail atop the receiver, a hard chrome-plated chamber, an improved extractor, backup iron sights, and the same bipod as used on the M82A1M (M107). The M95 also had a larger ejection port (requested by testers). Though the M95M was ultimately not chosen by the US Army, it is still used in an unofficial capacity by the US military in small numbers, as well as by some foreign military units. The US military primarily uses the M95 for antimateriel, EOD, and anti-IED work. Other users include Austria, Jordan, Malaysia, and Spain, who use the M95 in place of the M82 or alongside it.

The M99 is essentially a single-shot variant of the M95, with a longer 33-inch barrel. It was designed primarily for law enforcement, to stop vehicles by destroying their engine blocks, or penetrate the vehicles and kill their drivers or passengers if necessary, and do it at long range. Though the M99 was originally designed to be a less-expensive counterpart to the M95, it has acquired a reputation as one of the most accurate and reliable heavy sniping rifles in the world. Early production versions of these rifles used standard drilling and tapping for scope mounts, but most of them produced after 1995 use a MIL-STD-1913 rail (unless the buyer wants something else). A civilian long-range rifle enthusiast even used an M99 to set the world match accuracy record in 2004, using an M99 fed with match-quality ammunition.

Though the M99 began life as a rather uncomplicated weapon, it has morphed into several variants. The M99-1 is a shortened version of the Barrett 99; instead of the M99s 33-inch barrel, the M99-1 uses either a 29 or 25" barrel. A new development, introduced in early 2006, is an M99 and an M99-1 chambered for a new round developed by Barrett, the .416 Barrett. The round is basically a .50 BMG necked down to .416 caliber, and is said to be surprisingly effective. This chambering is available only as a 33-inch-barrel M99 or a 29-inch-barrel M99-1; no 25-inch-barrel version is as yet available.

Twilight 2000 Notes: The M95M does not exist in the Twilight 2000 timeline. M99s are rather rare rifles in the Twilight 2000 timeline, and the other versions of the M99 do not exist at all.

Weapon	Ammunition	Weight	Magazines	Price
M95	.50 Browning Machinegun	9.98 kg	5, 10	$7869
M95M	.50 Browning Machinegun	9.07 kg	5, 10	$7909
M99	.50 Browning Machinegun	11.34 kg	1 Internal	$4848
M99	.416 Barrett	11.34 kg	1 Internal	$3412
M99-1 (29" Barrel)	.50 Browning Machinegun	10.43 kg	1 Internal	$4715
M99-1 (25" Barrel)	.50 Browning Machinegun	9.53 kg	1 Internal	$4581
M99-1	.416 Barrett	10.43 kg	1 Internal	$3281

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
M95	BA	9	2-3-4	9	3	Nil	106
(With Bipod)	BA	9	2-3-4	9	1	Nil	137
M95M	BA	9	2-3-4	9	3	Nil	106
(With Bipod)	BA	9	2-3-4	9	2	Nil	137
M99 (.50)	SS	9	2-3-4	8	3	Nil	129
(With Bipod)	SS	9	2-3-4	8	1	Nil	167
M99 (.416)	SS	8	1-2-3	8	3	Nil	150
(With Bipod)	SS	8	1-2-3	8	1	Nil	194
M99-1 (29", .50)	SS	9	2-3-4	8	3	Nil	106
(With Bipod)	SS	9	2-3-4	8	1	Nil	137
M99-1 (25", .50)	SS	8	2-3-4	7	3	Nil	83
(With Bipod)	SS	8	2-3-4	7	2	Nil	108
M99-1 (.416)	SS	8	1-2-3	7	3	Nil	124
(With Bipod)	SS	8	1-2-3	7	1	Nil	161

Barrett XM109 AMSR

Notes: The AMSR (AntiMaterial Sniper Rifle) was also known as the OSW (Objective Sniper Weapon) and the Payload Rifle during development. It is a highly modified Barrett M82 (in its military M107 guise) made to fire a small grenade of the same type as fired by the OCSW. It is basically a semiautomatic grenade launcher. It was designed to give US special operations snipers the ability to defeat light armored vehicles as well as deal with massed infantry. It is otherwise a shorter-barreled Barrett, with a Picatinny Rail interface. There are rumors of its use in Afghanistan and Iraq, (it has seen use with unnamed uses for operational testing, which may be wartime use or evaluation use with an actual unit) but it is still officially in the testing phases. It is still an open question whether it will become a mainstream weapon, or remain only for very narrow uses (or not used at all).

A novel use of the AMSR is to blow reactive armor panels off a target, allowing a rocket or missile a better shot.

Twilight 2000 Notes: This weapon does not exist in the Twilight 2000 timeline.

Merc 2000 Notes: This weapon is not available until 2006.

Weapon	Ammunition	Weight	Magazines	Price
AMSR	25mm OCSW	13.83 kg	4	$10641

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
AMSR (Slug)	SA	13	2-2-3	7	3	Nil	66
AMSR (Slug, Bipod)	SA	13	2-3-3	7	2	Nil	81
AMSR (APDS)	SA	13	1-1-1	7	3	Nil	79
AMSR (APDS, Bipod)	SA	13	1-1-1	7	2	Nil	97
AMSR (HEAT)	SA	C1 B8	23C	7	3	Nil	51
AMSR (HEAT, Bipod)	SA	C1 B8	23C	7	2	Nil	61
AMSR (HEDP)	SA	C2 B10	11C	7	3	Nil	51
AMSR (HEDP, Bipod)	SA	C2 B10	11C	7	3	Nil	61
AMSR (HE)	SA	C2 B12	0C	7	3	Nil	51
AMSR (HE, Bipod)	SA	C2 B12	0C	7	2	Nil	61

Barrett XM500

Notes: Developed primarily for the US military, the XM500 is a bullpup version rifle based on the M107 version of the M82A1, with some other modifications. The XM500 is officially listed as still being in the early stages of development, and it is not known if it has seen any sort of combat or even combat training use.

The existence of the XM500 was first revealed in 2006, though it is likely that prototypes existed at least several months before that, if not longer. Construction is largely to the same standards as the M107 (modified for its bullpup format, of course), but in addition has a rubber recoil pad and a shorter MIL-STD-1913 rail, since the receiver top is shorter. Some of the primary users of the XM500 are to be airborne, air assault, and special operations units; they wanted a more compact and lighter Barrett. Therefore, the use of light alloys was done as much as possible, and that in addition to the bullpup layout reduces the weight substantially. The 29-inch barrel of the M107, along with the muzzle brake on a threaded muzzle, is retained. The barrel, however, has a very heavy profile, though it is fluted, and is free-floating. Unlike the M82A1/M107, accuracy and stability is also improved since the XM500's barrel does not recoil with a shot, unlike the M82/M107; the barrel is not a part of the operation of the rifle. Operation is otherwise by gas piston, with locking being done by a rotary bolt. The XM500 design does not currently have iron sights, though this is being looked at for possible future development. The bipod has been moved in location to just behind the front end of the handguards/receiver, just in front of the cooling slots. The bipod is quick-detachable, and is adjustable for height and cant. Like the rest of the Barrett series, the pistol grip, trigger (but not the whole trigger pack) and controls are based on those of the M16 series.

Exactly when the XM500 will enter service is unknown, but considering that it is based on an already-proven rifle, the wait will probably not be long.

Twilight 2000 Notes: The XM500 does not exist in the Twilight 2000 timeline as such, though some similarly-modified M82A2s were apparently used by NATO military forces.

Weapon	Ammunition	Weight	Magazines	Price
XM500	.50 Browning Machinegun	11.8 kg	10	$5835

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
XM500	SA	9	2-3-4	8	3	Nil	111
With Bipod	SA	9	2-3-4	8	1	Nil	140

Bohica Arms FAR50

Notes: The FAR50 is actually a replacement upper receiver group, including barrel and bolt carrier group, for the AR-15/M16/M4 series of rifles. This gives the rifle a new chambering and a bolt action instead of a semiautomatic or automatic action. The new barrel is a floating match-grade bull barrel tipped with a large muzzle brake. New rectangular handguards are used, and the front of those handguards have a light bipod adjustable for height and cant. Optional handguards have four MIL-STD-1913 rails, and both are made from polymer. The top of the receiver has a MIL-STD-1913 rail for optics. A standard stock may be used, but the new upper receiver includes a skeletonized stock for weight savings, with a rubber recoil pad and a raised cheekpiece.

Weapon	Ammunition	Weight	Magazines	Price
FAR50 (16" Barrel)	.50 Browning Machinegun	9.16 kg	1 Internal	$1630
FAR50 (24" Barrel)	.50 Browning Machinegun	10.3 kg	1 Internal	$1903
FAR50 (30" Barrel)	.50 Browning Machinegun	11.43 kg	1 Internal	$2109
FAR50 (36" Barrel)	.50 Browning Machinegun	12.56 kg	1 Internal	$2308
FAR50 (16" Barrel)	.50 DTC-EDM Spec	9.16 kg	1 Internal	$1612
FAR50 (24" Barrel)	.50 DTC-EDM Spec	10.3 kg	1 Internal	$1886
FAR50 (30" Barrel)	.50 DTC-EDM Spec	11.43 kg	1 Internal	$2092

FAR50 (36" Barrel)	.50 DTC-EDM Spec	12.56 kg	1 Internal	$2298
FAR50 (16" Barrel)	.416 Barrett	9.16 kg	1 Internal	$1354
FAR50 (24" Barrel)	.416 Barrett	10.3 kg	1 Internal	$1625
FAR50 (30" Barrel)	.416 Barrett	11.43 kg	1 Internal	$1828
FAR50 (36" Barrel)	.416 Barrett	12.56 kg	1 Internal	$2030
FAR50 (16" Barrel)	.338 Lapua Magnum	9.16 kg	1 Internal	$1198
FAR50 (24" Barrel)	.338 Lapua Magnum	10.3 kg	1 Internal	$1467
FAR50 (30" Barrel)	.338 Lapua Magnum	11.43 kg	1 Internal	$1668
FAR50 (36" Barrel)	.338 Lapua Magnum	12.56 kg	1 Internal	$1869

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
FAR50 (.50 BMG, 16")	SS	8	2-3-4	7	4	Nil	39
With Bipod	SS	8	2-3-4	7	2	Nil	51
FAR50 (.50 BMG, 24")	SS	8	2-3-4	8	3	Nil	81
With Bipod	SS	8	2-3-4	8	2	Nil	106
FAR50 (.50 BMG, 30")	SS	9	2-3-4	9	3	Nil	116
With Bipod	SS	9	2-3-4	9	2	Nil	150
FAR50 (.50 BMG, 36")	SS	9	2-3-4	10	3	Nil	151
With Bipod	SS	9	2-3-4	10	2	Nil	197
FAR50 (.50 DTC-EDM Spec, 16")	SS	8	2-3-4	7	4	Nil	41
With Bipod	SS	8	2-3-4	7	2	Nil	53
FAR50 (.50 DTC-EDM Spec, 24")	SS	8	2-3-4	8	3	Nil	84
With Bipod	SS	8	2-3-4	8	2	Nil	109
FAR50 (.50 DTC-EDM Spec, 30")	SS	9	2-3-4	9	3	Nil	119
With Bipod	SS	9	2-3-4	9	2	Nil	154
FAR50 (.50 DTC-EDM Spec, 36")	SS	9	2-3-4	10	3	Nil	156
With Bipod	SS	9	2-3-4	10	2	Nil	203
FAR50 (.416 Barrett, 16")	SS	7	1-3-5	6	3	Nil	49
With Bipod	SS	7	1-3-5	6	1	Nil	64
FAR50 (.416 Barrett, 24")	SS	7	1-3-5	8	3	Nil	96
With Bipod	SS	7	1-3-5	8	1	Nil	125
FAR50 (.416 Barrett, 30")	SS	8	1-2-3	9	3	Nil	136
With Bipod	SS	8	1-2-3	9	2	Nil	176
FAR50 (.416 Barrett, 36")	SS	8	1-2-3	10	3	Nil	178
With Bipod	SS	8	1-2-3	10	2	Nil	230
FAR50 (.338 Lapua, 16")	SS	6	1-2-3	6	2	Nil	50
With Bipod	SS	6	1-2-3	6	1	Nil	65
FAR50 (.338 Lapua, 24")	SS	6	1-3-Nil	7	2	Nil	95
With Bipod	SS	6	1-3-Nil	7	1	Nil	124
FAR50 (.338 Lapua, 30")	SS	6	1-3-Nil	8	2	Nil	132
With Bipod	SS	6	1-3-Nil	8	1	Nil	172
FAR50 (.338 Lapua, 36")	SS	7	1-3-5	9	2	Nil	163
With Bipod	SS	7	1-3-5	9	1	Nil	212

Bushmaster BA50

Notes: The BA50 is aimed at the military and law-enforcement market; though there are rumors of limited military testing and use in the US and other countries, and some limited law enforcement use for specialized applications (such as hard target interdiction, i.e. antimateriel use), the primary market seems to be long-range marksmanship shooters. The basic receiver resembles an overgrown AR-type receiver, and the pistol grip, trigger (though not the trigger pack), and the fire controls are quite similar to those of an AR-15. Diassembly is essentially the same procedure as that of an AR-type weapon. There, however, the resemblances largely end, except for a superficial visual resemblance. The receiver is topped by a MIL-STD-1913 rail that runs the length of the upper receiver, and that upper receiver is an extrusion of T6-6061 aluminum alloy, with the MIL-STD-1913 rail an integral part of this extrusion. The lower

receiver is machined from a solid billet of the same T6-6061 aluminum alloy. The use of this alloy and the receiver's construction gives it strength while holding down weight. The handguards are likewise of aluminum alloy, slotted for ventilation, and topped with a further length of MIL-STD-1913 rail. No iron sights are provided integral to the weapon, though backup iron sights may be added to the rails, whether folding or fixed in height. The free-floating heavy barrel is 30 inches in length, and tipped with a massive high-efficiency multi-baffle muzzle brake (as large as a 50-round box of 9mm Parabellum ammunition you might buy from a store) that is rectangular in shape. The barrel is secured directly to the upper receiver by 51mm-long bolts, ensuring that it is solidly-mounted despite being free-floating and having no bedding of any sort. The BA50 uses a synthetic Magpul PRS stock adjustable for length of pull and height of cheekpiece, and has a thick LimbSaver recoil pad. The stock also slides to an extent, primarily to make it a more compact package for carrying or storage. The pistol grip is likewise synthetic, being an ErgoGrip Deluxe Tactical model. The folding bipod is simple and deceptively slim in profile; though it is not adjustable for height or cant, it is quite strong and locks securely in position whether open or folded. Despite being primarily a right-handed rifle, the bolt lever is on the left side of the receiver, which means that a right-handed shooter must remove his hand from the pistol grip to cycle the action. (This left-handed bolt was necessary for proper functioning of the action used, and case ejection is to the right.) The entire construction of the BA50 is quite solid and surprisingly smooth, despite the long action. Finish is hard anodized black on aluminum alloy parts and manganese phosphate on the steel parts (such as the barrel, muzzle brake, and most working parts). The action has enough tolerance in it to make it relatively insensitive to dirt but close enough tolerances to keep the BA50 a relatively precision weapon. Recoil is quite low for a weapon of its type, due to the weight and the stock design.

The BA50 Carbine is the same weapon, but with a shorter 22-inch barrel and the resultant reduction in weight. It also does not have the second MIL-STD-1913 rail above the handguards.

Weapon	Ammunition	Weight	Magazines	Price
BA50 Rifle	.50 Browning Machinegun	13.6 kg	10	$8019
BA50 Carbine	.50 Browning Machinegun	12.2 kg	10	$7670

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
BA50 Rifle	BA	9	2-3-4	9/10	2	Nil	125
With Bipod	BA	9	2-3-4	9/10	1	Nil	163
BA50 Carbine	BA	8	1-3-5	8/9	3	Nil	76
With Bipod	BA	8	1-3-5	8/9	1	Nil	99

CheyTac LRRS-Intervention

Notes: The CheyTac (Cheyenne Tactical) LRRS (Long-Range Rifle System) is a design that is based on the EDM Arms Windrunner sniper rifle. The weapon has, however, been modified to fire a new, proprietary cartridge, the .408 CheyTac cartridge. This offers damaging performance superior to that of the .338 Lapua Magnum and range slightly better than the .50 Browning Machinegun round, and also allows for a lighter weapon.

There are currently three models of the LRRS-Intervention: the M100, a semiautomatic takedown version designed primarily for military use; the M200, a bolt-action version of the M100 designed for military and police use; and the M310, a non-takedown, single-shot model designed for police use and for civilian enthusiasts of long-range rifles. All three versions come with an adjustable/folding skeletonized stock, MIL-STD-1913 rail above the receiver, an underbarrel carrying handle, and a large pepperpot-type muzzle brake (which can be removed and replaced by a suppressor). None of these rifles are equipped with iron sights. They are sold with a CheyTac ballistic computer, which is a commercial handheld-type computer loaded with CheyTac's special software; this is to compute shooting conditions and the sights mounted on the rifle to find the best aiming solution. In addition, they are sold with a Kestrel 4000 weather sensor package, which is linked to the handheld computer.

Twilight 2000 Notes: This weapon does not exist in the Twilight 2000 timeline.

Weapon	Ammunition	Weight	Magazines	Price
M100	.408 CheyTac	12.3 kg	5	$8019
M200	.408 CheyTac	10.1 kg	5	$6923
M310	.408 CheyTac	8.7 kg	1 Internal	$5296

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
M100	SA	7	1-3-5	9/10	2	Nil	104
M100 (With Bipod)	SA	7	1-3-5	9/10	1	Nil	135
M200	BA	7	1-3-5	9/10	3	Nil	114
M200 (With Bipod)	BA	7	1-3-5	9/10	1	Nil	148
M310	SS	7	1-3-5	7/8	3	Nil	114
M310 (With Bipod)	SS	7	1-3-5	7/8	1	Nil	149

Cobb BA50/FA50

Notes: This is a massive, bolt-action, heavy-caliber sniper rifle designed from a scaled-up AR-15 action and body. However, though some parts are similar or identical to the AR-15 (the stock, pistol grip, parts of the trigger group, magazine catch, recoil spring,

and a few others), this is definitely not simply a big AR-15. The bipod is adapted from an M-60 machinegun. The muzzle brake is borrowed from the ArmaLite AR50. The stock is perhaps most like that of the AR-15; in fact, any sort of AR-15-compatible stock will fit on the BA50. The FA50 uses a MIL-STD-1913 rail to allow it to mount virtually any sort of optic, sight, or accessory. The BA50 comes in three versions, a standard length model, "carbine" version, and a suppressed model. They are generally finished in OD Green DuraCoat with black camouflaging stripes, but other colors can be had.

Externally, the FA50 (Fast-Action) appears quite similar to the BA50, but the FA50 is a semiautomatic rifle. This means that while the FA50 is externally similar to the BA50, internally it is very different. There are also some minor weight differences, but accouterments are the same as used on the BA50.

Twilight 2000 Notes: These weapons do not exist in the Twilight 2000 timeline.

Merc 2000 Notes: These weapons are currently used by US and NATO special operations forces, in small numbers, with the FA50 being the most-common military rifle. Most of these are "tricked-out" in a manner similar to that of the M107/M107CQ.

Weapon	Ammunition	Weight	Magazines	Price
BA50	.50 Browning Machinegun	13.61 kg	10	$8002
BA50 Carbine	.50 Browning Machinegun	12.25 kg	10	$7732
BA50 Suppressed	.50 Browning Machinegun	29.13 kg	10	$10529
FA50	.50 Browning Machinegun	13.15 kg	10	$5889
FA50 Carbine	.50 Browning Machinegun	11.83 kg	10	$5619
FA50 Suppressed	.50 Browning Machinegun	28.71 kg	10	$8439

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
BA50	BA	9	2-3-4	9	3	Nil	124
BA50 (Bipod)	BA	9	2-3-4	9	1	Nil	161
BA50 Carbine	BA	8	2-3-4	8	3	Nil	75
BA50 Carbine (Bipod)	BA	8	2-3-4	8	1	Nil	97
BA50 Suppressed	BA	6	2-4-Nil	13	3	Nil	63
BA50 Suppressed (Bipod)	BA	6	2-4-Nil	13	1	Nil	81
FA50	SA	9	2-3-4	9	3	Nil	112
FA50 (Bipod)	SA	9	2-3-4	9	1	Nil	146
FA50 Carbine	SA	8	2-3-4	8	3	Nil	68
FA50 Carbine (Bipod)	SA	8	2-3-4	8	2	Nil	88
FA50 Suppressed	SA	6	2-4-Nil	13	3	Nil	57
FA50 Suppressed (Bipod)	SA	6	2-4-Nil	13	1	Nil	74

EDM XM107 Windrunner

Notes: Described as a heavy tactical rifle, the Windrunner is a .50 caliber rifle designed for military, police, and civilian applications. It has a number of unusual features; one of these is that it may be broken into up to 5 pieces for transport – thus the reason EDM calls the Windrunner a "Tactical Takedown Antimateriel Rifle." Disassembly of the Windrunner takes about a minute, and reassembly takes under 3 minutes. After disassembly, the Windrunner occupies a space about 32 inches long and can be put into a rifle case or large suitcase.

The receiver is machined from a single block of 4140 chrome-molybdenum steel, which is then hardened to 4042 specifications. The barrel is similarly-machined, but is made from graphite composites with an internal steel liner, and is fluted for both cooling and stiffness. It is attached to the receiver with a threaded nut using a self-locking ratchet; the threads are also reversed so that firing only makes the barrel retain its tightness instead of causing it to become looser. This 30-inch barrel is heavy and match-quality, and is tipped with huge pepperpot muzzle brake with 80 vent holes and is fastened to the barrel in a similar manner. The stock is also made from steel, and the entire stock slides on rails for length of pull adjustments, though the stock assembly itself is rather abbreviated. The cheekpiece is not adjustable (and is in fact a part of the stock), but is padded, along with the buttplate. The bipod is the same as used on newer versions of the M-21, and is adjustable for height and cant. The stock is also equipped with a folding monopod which is adjustable for height. The receiver is topped with a MIL-STD-1913 rail for the mounting of optics.

Variants of the XM107 include the SS-99, which is a single-shot version of the XM107, and the SS-338, which is chambered for .338 Lapua Magnum. The latter is not an antimateriel rifle, but rather a sniper rifle, but is included here for completeness. Both are otherwise identical to the XM107.

It should be noted that despite EDM's designation of the .50 Browning Machinegun version of the Windrunner ("XM107"), this is *not* any sort of official US military designation, nor is it related to the M107 version of the Barrett M82A1.

Twilight 2000 Notes: This rifle does not exist in the Twilight 2000 timeline.

Weapon	Ammunition	Weight	Magazines	Price
XM107	.50 Browning Machinegun	14.24 kg	3	$7912
SS-99	.50 Browning Machinegun	11.83 kg	1 Internal	$4775
SS-338	.338 Lapua Magnum	9.8 kg	5	$3508

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
XM107	BA	9	2-3-4	10	3	Nil	124
(With Bipod)	BA	9	2-3-4	10	1	Nil	161
SS-99	SS	9	2-3-4	9	3	Nil	124
(With Bipod)	SS	9	2-3-4	9	1	Nil	161
SS-338	BA	6	1-3-Nil	9	2	Nil	117
(With Bipod)	BA	6	1-3-Nil	9	1	Nil	153

Halo Arms HA50

Notes: Designed both for civilian competition shooting and military use, the HA50 is "sort-of" a bullpup-design rifle – it is a single-shot weapon, but the bottom-mounted loading port is behind the pistol grip, reducing overall length. Much of the parts of the weapon are either handmade or hand-finished, which makes the HA50 a tight, solid weapon with excellent accuracy. The single-shot design allows the HA50 to use virtually any sort of .50 Browning Machinegun ammunition – from standard ball to match rounds, and even such exotic rounds such as .50 Spotting Round ammunition. The design of the muzzle brake also allows the HA50 to use SLAP rounds and other saboted rounds, something most rifles equipped with muzzle brakes cannot do without destroying the muzzle brake instantly.

The standard HA50, the HA50 FTR (Field Tactical Rifle) is largely built from high-grade steel, with some synthetic parts such as the pistol grip and foregrip (another unusual feature on such a rifle), and an aluminum alloy bipod. The stock houses part of the action, and the butt has a simple buttplate with a thick recoil pad attached. The bipod is a quick-deploy Harris-type bipod adjustable for height and cant. The bipod is mounted at the point of balance of the rifle, at the end of the receiver. The HA50 FTR has flip-up front and rear iron sights (though due to the design of the receiver, the sight radius is only about the same as that of the M4 carbine). However, the receiver is also topped with a MIL-STD-1913 rail, and the HA50 FTR is primarily meant to be used with a telescopic sight of some sort. The trigger unit is taken from the AR-15, but modified for bolt action and hand-tuned to lower the pull weight and slightly increase the pull length. The barrel is match quality and made of chrome-moly steel, with a length of 22 inches.

The HA50 LRR (Long-Range Rifle) is a dedicated sniper's platform; the receiver and action are largely the same as the HA50 FTR, but the top of the receiver has no iron sights, and the MIL-STD-1913 rail is shorter. The barrel is 30 inches long, but of the same quality as the HA50 FTR. The butt has a retractable and adjustable support leg, and the buttplate is adjustable for length. The bipod is a highly-modified version of the M-14's bipod, adjustable for height and cant, and it supports the rifle from the top of the receiver instead of the bottom. This leaves room for a short, 3-inch-wide handguard; there is no foregrip as on the HA50 FTR.

Weapon	Ammunition	Weight	Magazines	Price
HA50 FTR	.50 Browning Machinegun	11.64 kg	1 Internal	$4477
HA50 LRR	.50 Browning Machinegun	13.91 kg	1 Internal	$4746

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
HA50 FTR	SS	8	2-3-4	6	3	Nil	83
With Bipod	SS	8	2-3-4	6	1	Nil	104
HA50 LRR	SS	9	2-3-4	8	3	Nil	128
With Bipod	SS	9	2-3-4	8	1	Nil	162

Harris M-87/M-87R

Notes: This .50 caliber sniping rifle found a place with gun enthusiasts in the US, though it found military use only with certain special operations units (such as the US Navy's SEALs, who use 350 of them) and the French Army, Germany, Italy, Turkey, and Pakistan. (The British SBS is also known to have at least two of them, and Bahrain has 6.) It is a solidly built, bolt-action rifle capable of long-range shots. Accurate fire is achieved after very little training and familiarization. The muzzle brake is very efficient and accurate shoulder fire is possible. The stock is adjustable, as is the cheekpiece. The M-87 is a single-shot rifle without a magazine; the M-87R is a bolt-action repeater.

Twilight 2000 Notes: As with many such rifles, the Harris M-87R was used to supplement weapons such as the Barrett rifles with many countries when supplies of the Barrett ran short.

Weapon	Ammunition	Weight	Magazines	Price
Harris M-87	.50 Browning Machinegun	9.42 kg	1-I	$2020
Harris M-87R	.50 Browning Machinegun	9.72 kg	5	$7761

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
M-87	SS	9	2-3-4	8	4	Nil	107
M-87 (Bipod)	SS	9	2-3-4	8	2	Nil	139
M-87R	BA	9	2-3-4	8	3	Nil	117
M-87R (Bipod)	BA	9	2-3-4	8	2	Nil	152

Harris M92

Notes: This is basically an M-87R in a bullpup configuration; aside for what was necessary to turn it into a bullpup, it is the same weapon as the M-87R. In addition, there is a semiautomatic version of the M92.

Weapon	Ammunition	Weight	Magazines	Price
M92 (Bolt-Action)	.50 Browning Machinegun	10.9 kg	5	$7716
M92 (Semiautomatic)	.50 Browning Machinegun	10.9 kg	5	$5725

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
M92 (Bolt-Action)	BA	9	2-3-4	7	3	Nil	106
M92 (Bolt-Action, Bipod)	BA	9	2-3-4	7	1	Nil	137
M92 (Semiautomatic)	SA	9	2-3-4	7	3	Nil	96
M92 (Semiautomatic, Bipod)	SA	9	2-3-4	7	1	Nil	125

Harris M93

Notes: A small number of these rifles (about 20) are also in use by the French military, and other sales were made to US civilians and special operations units. The largest military user is the Turkish Army, with about 50 in stock; Russia even has one. It is a version of the M-87R that uses higher capacity magazines. Another change is the hinged buttstock, normally used for storage and transport, though inaccurate fire is possible with the stock folded.

Twilight 2000 Notes: Needless to say, the Russians do not officially have any of these weapons.

Weapon	Ammunition	Weight	Magazines	Price
M93	.50 Browning Machinegun	9.72 kg	5, 10, 20	$7931

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
M93	BA	9	2-3-4	7/8	3	Nil	117
M93 (Bipod)	BA	9	2-3-4	7/8	1	Nil	152

Harris M95

Notes: This is another modified version of the M-87R; it is basically an M-87R made of lighter, more advanced materials and with the capability to use larger magazines. It is otherwise identical to the M-87R. It is one of the lightest .50 caliber rifles one can find anywhere, though some troops consider this light weight to be somewhat of a handicap. It is also a somewhat expensive weapon, compared to others of the same type.

Twilight 2000 Notes: Introduced late, and built of exotic materials, the M95 had extremely limited distribution before Harris Gunworks was put out of commission.

Merc 2000 Notes: The cost of the M95 meant that most of Harris' customers bought its cheaper products.

Weapon	Ammunition	Weight	Magazines	Price
M95	.50 Browning Machinegun	8.165 kg	5, 10, 20	$8879

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
M95	BA	9	2-3-4	8	3	Nil	117
M95 (Bipod)	BA	9	2-3-4	8	2	Nil	152

Harris M96

Notes: Introduced in 1996, this is intended to be a heavy antipersonnel rifle used to provide sustained fire support to friendly troops, rather than as an antimateriel rifle. It is basically a continuation of the series started with the M-87R; there are some design changes, mostly in the interests of ergonomics, but the primary change is a switch to semiautomatic operation. The rifle is made entirely of machined parts, rather than stamped or cast parts; the exception to this is the composite one-piece receiver. The buttstock is made from fiberglass and can be removed, but is not folding.

Twilight 2000 Notes: This is literally the last weapon produced by Harris Gunworks until long after the Twilight War; unfinished M96's were some of the weapons found by police in the remains of the factory after anti-war activists firebombed the factory about 3 weeks before the November Nuclear Exchange

Weapon	Ammunition	Weight	Magazines	Price
M96	.50 Browning Machinegun	13.61 kg	5, 10, 20	$6788

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
M96	SA	9	2-3-4	9	2	Nil	107
M96 (Bipod)	SA	9	2-3-4	9	1	Nil	139

LAR Grizzly Big Bore

Notes: The LAR Grizzly Big Bore is a bullpup, bolt-action, single-shot heavy-caliber rifle similar in appearance to several of the

Maadi-Griffon designs, most notably the M89. It is of all-steel construction, with a large muzzle brake and made from 4140 steel which has been further treated to greater hardness, along with a 4340 steel bolt which has also been treated to greater hardness. The Grizzly Big Bore has a positive safety switch similar in outward appearance to that of the M16 series; the pistol grip is likewise similar to that of the M16 series. The pistol grip and the rubber recoil pad on the butt are some of the few parts of the rifle which are not made of steel. The Grizzly Big Bore uses a Harris bipod. The telescopic scope and rings are normally sold separately, but I have included them in the cost of the weapon as presented here.

Twilight 2000 Notes: This rifle is *extremely* rare.

Weapon	Ammunition	Weight	Magazines	Price
Grizzly Big Bore	.50 Browning Machinegun	13.89 kg	1 Internal	$4918

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
Grizzly Big Bore	SS	9	2-3-4	9	3	Nil	147
(Bipod)	SS	9	2-3-4	9	1	Nil	191

9

McMillan M-87R

Notes: Another favorite of the US Marine and Navy snipers, the M-87R is a highly modified Remington 700 action with a new synthetic stock and new chamber and barrel. They typically use 20x Unertl scopes. This rifle saw action with the USMC and (in limited numbers) with US Army snipers in Desert Storm. The M-87 has a very efficient muzzle blast compensator to reduce recoil to that similar to a .375 Remington round. The M-87R has an adjustable cheek piece and a bipod. The M-87 is a single-shot version of this weapon.

The McMillan 14.5mm Rifle is a limited-production version of the M-87R chambered for the 14.5mm cartridge. This rifle is heavier than the M-87R, but the design is virtually the same.

Twilight 2000 Notes: The US Navy and Marines used numbers of the M-87R when the need for a .50-caliber sniper rifle arose in the Twilight 2000 timeline; they also made some very limited use of the 14.5mm Rifle.

Weapon	Ammunition	Weight	Magazines	Price
M-87R	.50 Browning Machinegun	9.75 kg	7	$7780
14.5mm Rifle	14.5mm KPV	14.96 kg	5	$10710

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
M-87R	BA	9	2-3-4	8	3	Nil	117
With Bipod	BA	9	2-3-4	8	2	Nil	153
14.5mm Rifle	BA	10	2-2-3	8	4	Nil	112
With Bipod	BA	10	2-2-3	8	2	Nil	146

McMillan Tac-50

Notes: This is a heavy antipersonnel and antimateriel rifle designed for use at long ranges. The Tac-50 comes in both magazine-fed and single-shot versions; the magazine-fed version is sold primarily to military organizations, while the single-shot version is sold primarily to civilian long-range rifle enthusiasts and police organizations. Both versions feature a stock with provision for butt spacers in the root of the stock and may be detached entirely if desired (normally for transport; the barrel may also be removed for the same reason). The barrel is heavy and fluted, and is tipped with a lightweight but effective muzzle brake. Tac-50s sold to civilians typically have simple scope rings, while those sold to military and police concerns normally have a MIL-STD-1913 rail. In either case, iron sights are not normally provided. The Tac-50 has a pistol grip due to the stock design and has a lightweight but strong bipod. Notable users include US Navy SEALS and the Canadian Army. It was with this weapon (which the Canadians call the LRSW, or Long-Range Sniper Weapon) that a Canadian sniper made the world's record (at the time) for a firearms kill. This was done at a range of 2430 meters against a Taliban truck driver. (*Thanks to Darwin Liu for the correction on the Canadian sniper record shot.)*

Twilight 2000 Notes: This weapon does not exist in the Twilight 2000 timeline.

Weapon	Ammunition	Weight	Magazines	Price
Tac-50 (Bolt-Action)	.50 Browning Machinegun and .50 Match	11.8 kg	5	$7815
Tac-50 (Single-Shot)	.50 Browning Machinegun and .50 Match	9.93 kg	1 Internal	$4661

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
Tac-50 (Bolt-Action, .50 BMG)	BA	9	2-3-4	9	3	Nil	117
Tac-50 (Bolt-Action, .50 BMG, Bipod)	BA	9	2-3-4	9	2	Nil	152
Tac-50 (Bolt-Action, .50 Match)	BA	9	2-3-4	9	3	Nil	143
Tac-50 (Bolt-Action, .50 Match, Bipod)	BA	9	2-3-4	9	2	Nil	186
Tac-50 (Single-Shot, .50 BMG)	SS	9	2-3-4	9	4	Nil	117
Tac-50 (Single-Shot, .50 BMG, Bipod)	SS	9	2-3-4	9	2	Nil	152
Tac-50 (Single-Shot, .50 Match)	SS	9	2-3-4	9	4	Nil	143
Tac-50 (Single-Shot, .50 Match, Bipod)	SS	9	2-3-4	9	2	Nil	186

MG Arms Behemoth

Notes: One gun expert calls the Behemoth "True to its name…", it is such a big rifle. It's designed to be the longest-range .50 BMG rifle in existence, but thusfar has had no combat use or any experience off the range, where performance is excellent. It's longer than my mother is tall (5'1" long; my mother is 4'11") and *heavy*. It is "built like a bank vault," with solid and true construction. The Behemoth has had the input of none other than Robert Pauza, whose rifle you can see the stats for below. The Behemoth's genesis was driven by customer demand and demand from law enforcement.

Selected parts are heat-treated; the barrels are heat-treated too, but not in-house. The barrel is a 26, 29, or 31-inch Pac-Nor bull barrel with lightening cuts in them. The barrel is tipped by a beefy MG Super Eliminator multi-baffle muzzle brake; and is free-floating. Like the P-50, the Behemoth is based on the Tokarev SVT-40 adjustable gas/blowback system of World War 2, which is simple, easy to machine, and locks up tight when cycling. The gas-adjustment system is simpler than an SVT-40, requiring only a pull on a button-shaped knob. The gas tube has vent holes, but they are inside the handguard. The receiver cover, trigger housing, trigger/hammer support frame, and handguard are from 7075-T6 aluminum. The receiver is made from heat-treated 17-4 stainless steel. The bolt carrier is also of heat-treated 17-4 stainless steel. Field stripping is likewise easy, if a bit tricky. The receiver and top of the handguard

have a MIL-STD-1913 rail. The receiver rail is solidly attached with a large rail. The stock is adjustable for cheek height, length, and butt angle, and has a thick recoil pad. Finish is in Cerekote and may be any color desired.

Weapon	Ammunition	Weight	Magazines	Price
Behemoth (25" Barrel)	.50 Browning Machinegun	15.34 kg	5	$5645
Behemoth (29" Barrel)	.50 Browning Machinegun	15.72 kg	5	$5783
Behemoth (31" Barrel)	.50 Browning Machinegun	15.88 kg	5	$5851

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
Behemoth (25" Barrel)	SA	8	2-3-4	11	2	Nil	88
With Bipod	SA	8	2-3-4	11	1	Nil	115
Behemoth (29" Barrel)	SA	9	2-3-4	11	2	Nil	111
With Bipod	SA	9	2-3-4	11	1	Nil	145
Behemoth (31" Barrel)	SA	9	2-3-4	12	3	Nil	123
With Bipod	SA	9	2-3-4	12	1	Nil	160

Pauza P-50

Notes: Designed by Robert Pauza and at first sold by his company, Pauza Specialties, by 2007 the Pauza P-50 was being sold by Freshour Manufacturing. Though reportedly "many sales" have been made to various governments, exactly who is using the P-50 other than civilian long-range rifle enthusiasts is unknown.

The P-50 appears to be heavily-built and equally heavy in weight, but it's really about the same weight as other rifles in its class. This primarily due to the use of high-strength, high-grade steel in its construction, as well as a decent amount of aircraft-grade aluminum. Operation is, surprisingly, based upon the old Soviet Tokarev SVT-40 – suitably enlarged and strengthened, of course. The P-50 is therefore gas-operated, with a dropping-bolt action and fires semiautomatically. Barrels are free-floating and tipped with a long (though narrow) harmonica-type muzzle brake. Virtually all external metal is Teflon-coated, and many internal parts are hard chrome-plated. The gas system has three adjustment settings to help the P-50 cope with dirt and moisture. The pistol grip is similar to that of the M-16, but the selector switch is more reminiscent of the M-14. The charging handle, ejection direction, and selector switch can be reversed to accommodate left and right-handed shooters.

The P-50 exists in two versions. The standard P-50 (sometimes referred to as the "P-50 Sporting Rifle") uses a 29-inch barrel. The receiver is topped by a carrying handle, which itself has a Weaver rail mounted on it. The stock is coated with rubber, and it can be detached along with the barrel for transport. A bipod adjustable for height and cant is mounted under the gas block, and this can readily be removed. The stock also has a projection underneath it to allow the shooters nonfiring handed to grasp the stock to steady the rifle.

The P-50 "Carbine" is very similar to the standard P-50, but uses a 25-inch barrel. The P-50 Carbine has a short handguard, and a foregrip may be attached to this handguard, allowing it to be used with the bipod as a conventional antimateriel rifle or as a heavy assault weapon.

Twilight 2000 Notes: The P-50 is an exceedingly-rare weapon in the Twilight 2000 timeline.

Weapon	Ammunition	Weight	Magazines	Price
P-50	.50 Browning Machinegun	14.52 kg	5	$10002
P-50 Carbine	.50 Browning Machinegun	12.47 kg	5	$9868

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
P-50	SA	9	2-3-4	11	3	Nil	107
With Bipod	SA	9	2-3-4	11	1	Nil	139
P-50 Carbine	SA	8	2-3-4	10	3	Nil	84
With Bipod	SA	8	2-3-4	10	1	Nil	109

RAD M-600/M-650 SLAMR

Notes: Originally patterned on an Iver Johnson design, Redick Arms bought out the company and redesigned the rifle slightly for military contract sales. An accurate rifle, it has found favor with some SOCOM sniper teams for long-range shots. A special stock-mounted 10-round pouch (included with the rifle) was designed for snipers to have easy access to loose rounds for more rapid reloading. The M-650 is an M-600 with a shorter barrel and fed by a magazine.

Twilight 2000 Notes: The weapon found favor only with a few snipers in the military services; however, a shortage of .50 caliber rifles in 1996 and 1997 (due to foreign sales of the Barrett and McMillan designs) brought their model back to production to fill the void.

Weapon	Ammunition	Weight	Magazines	Price
RAD M-600 SLAMR	.50 Browning Machinegun	10.43 kg	1-I	$2225
RAD M-650 SLAMR	.50 Browning Machinegun	13.52 kg	7-I	$7925

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range

M-600	SS	9	2-3-4	9	3	Nil	124
M-600 (Bipod)	SS	9	2-3-4	9	2	Nil	161
M-650	BA	9	2-3-4	9	3	Nil	124
M-650 (Bipod)	BA	9	2-3-4	9	1	Nil	161

RAD M-614

Notes: This is a 14.5mm heavy antimateriel rifle that has seen some use by "unnamed parties." The caliber is satisfyingly large, but accuracy can be hampered by the poor-quality 14.5mm KPV ammunition which is generally available. The range is still satisfyingly long, and the rifle is capable of destroying light equipment or damaging light vehicles. The rifle is capable of mounting far better optics and night vision equipment than corresponding Bloc rifles.

Twilight 2000 Notes: The M-614 saw some use by US and British special operations snipers during the Twilight War. Accuracy was hampered due to the generally poor quality of 14.5B ammunition available during that time period, even in the limited amount available of US manufacture.

Weapon	Ammunition	Weight	Magazines	Price
RAD M-614	14.5mm KPV	20 kg	1-I	$2919

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
M-614	SS	11	2-2-3	11	3	Nil	180
M-614 (Bipod)	SS	11	2-2-3	11	2	Nil	235

Robar RC-50

Notes: Originally designed for long-range competition shooting enthusiasts, the RC-50 has spread into the military and police realms, and is now used by several military special operations units and police forces worldwide.

The RC-50 is basically a conventional bolt-action magazine-fed heavy-caliber rifle in design. The action of the RC-50 is machined from a solid billet of steel and is mated to a 29-inch heavy match-quality barrel which is free-floating and tipped with a large and effective muzzle brake. The stock is a McMillan fiberglass/composite stock, with a raised cheekpiece and a buttplate adjustable for length of pull and with a Pachmayr Decelerator recoil pad. The trigger mechanism is a modified version of the Remington 700 trigger mechanism, tuned and set at a pull weight of only 2.5 pounds. The forward portion of the stock has a mounting stud for a bipod; the bipod supplied by Robar is manufactured by Parker-Hale, and is adjustable for height and cant. The receiver is topped by a MIL-STD-1913 rail for optics, and no iron sights are provided.

A variant of the RC-50, the RC-50F, is identical to the RC-50 except for the stock which may be folded for transportation. (The RC-50F *could* conceivably be fired with the stock folded, but the shooter would probably be very sorry…) When unfolded, the stock is held in place by a heavy bolt that screws into a block in the stock.

Twilight 2000 Notes: These rifles are *extremely* rare in the Twilight 2000 timeline, and rarely seen outside of military forces in the American Southwest.

Weapon	Ammunition	Weight	Magazines	Price
RC-50	.50 Browning Machinegun	11.84 kg	5	$7883
RC-50F	.50 Browning Machinegun	11.84 kg	5	$7978

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
RC-50	BA	9	2-3-4	11	3	Nil	118
(With Bipod)	BA	9	2-3-4	11	1	Nil	154
RC-50F	BA	9	2-3-4	9/11	3	Nil	118
(With Bipod)	BA	9	2-3-4	9/11	1	Nil	154

Safety Harbor Firearms SHTF-50

Notes: The SHTF-50 is not actually sold as a complete rifle; instead, the SHTF-50 is a replacement upper receiver/bolt carrier group (along with the hammer) designed to be mounted on a standard AR-15-type lower receiver. (It will not work with an M-16/M-4-type lower receiver.) The addition of the SHTF upper receiver and bolt carrier group turns the weapon into a .50-caliber rifle. It should be noted that the SHTF-50 is not normally sold with a scope or a bipod; however, the presence of a two level Mil-STD-1913 rail above the upper receiver and short MIL-STD-1913 rails above and below the gas block allows for the easy attachment of these accessories, and I have included them in the cost of the rifle as presented in the stats below. The new upper receiver is machined from 4130 chrome/moly steel, while the new bolt carrier group is of 4340 chrome/moly steel, and the barrel is of 4140 chrome/moly steel. The MIL-STD-1913 rails are of aluminum alloy and are not integral with the receiver or gas block. Barrels may be 18, 22, or 29 inches long, and are tipped with a long cylindrical multi-baffle muzzle brake. These rifles are very light in weight for the cartridge they fire, and the stock they use depends on the buyer – the stats below are for a standard, fixed AR-15A2-type stock. Recoil is generally heavier than most rifles of their class. However, the AR base makes for a compact rifle compared to most .50-caliber rifles.

Weapon	Ammunition	Weight	Magazines	Price
SHTF-50 (18"	.50 Browning Machinegun	6.58 kg	5	$5409

Barrel)				
SHTF-50 (22" Barrel)	.50 Browning Machinegun	7.03 kg	5	$5544
SHTF-50 (29" Barrel)	.50 Browning Machinegun	8.39 kg	5	$5780
SHTF-50 Upper (18" Barrel)	N/A	5.22 kg	N/A	$4993
SHTF-50 Upper (22" Barrel)	N/A	5.67 kg	N/A	$5121
SHTF-50 Upper (29" Barrel)	N/A	7.03 kg	N/A	$5345

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
SHTF-50 (18")	SA	8	2-3-4	7	4	Nil	47
With Bipod	SA	8	2-3-4	7	2	Nil	62
SHTF-50 (22")	SA	8	2-3-4	8	4	Nil	88
With Bipod	SA	8	2-3-4	8	2	Nil	103
SHTF-50 (29")	SA	9	2-3-4	9	3	Nil	107
With Bipod	SA	9	2-3-4	9	2	Nil	139

Serbu BFG-50

Notes: This is a heavy-caliber rifle designed primarily for long-range shooting enthusiasts, but also has possible military and police applications. It is a fairly lightweight weapon for its class, and is constructed mostly of Mil-Spec grade alloy steel. Production standards are very high, up to double what one finds in comparable military rifles. The BFG-50 is also designed for simplicity and ease of care and manufacture, which means it can be produced quickly and inexpensively when necessary (though only about 750 have been built; they are mostly made to order). The current design is a single-shot bolt-action model, though production of a magazine-fed version is expected shortly, and semiautomatic prototypes are in the experimental phase. (I have sufficient statistics for a magazine-fed bolt-action version, which is also shown below; I don't for the semiautomatic model). A "carbine" model and a full-sized model are offered; both are bullpup designs with a simple fixed tubular stock and a rather sparing recoil pad on the butt. They have a short MIL-STD-1913 rail on a raised mount top of the receiver for optics. The muzzle brake is large and beefy (called by the company a "Shark Brake"); an option for this brake is engraving which says "Have A Nice Day." The weight listed below includes a bipod and a scope, though the company does not normally ship the BFG-50 with either.

The BFG-50A is a semiautomatic version of the BFG-50. The BFG-50A uses Barrett 10-round magazines, and operation is via a modified version of that used by the Swedish Ljungman AG-42. The 26-inch barrel is tipped by a different muzzle brake than the BFG-50 (called by Serbu a "Shark Brake," as it has a "gills"). In the future, Serbu intends to make other barrel lengths available, and the barrel, barrel extension, and handguards are easily removable to this end. Unlike the BFG-50, the BFG-50A is not a bullpup design.

Twilight 2000 Notes: This rifle does not exist in the Twilight 2000 timeline.

Weapon	Ammunition	Weight	Magazines	Price
BFG-50	.50 Browning Machinegun	14.8 kg	1 Internal	$4624
BFG-50 Carbine	.50 Browning Machinegun	12.5 kg	1 Internal	$4391
BFG-50	.50 Browning Machinegun	18.5 kg	5	$7762
BFG-50 Carbine	.50 Browning Machinegun	15.6 kg	5	$7528
BFG-50A	.50 Browning Machinegun	11.34 kg	10	$5743

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
BFG-50	SS	9	2-3-4	8	3	Nil	106
(Bipod)	SS	9	2-3-4	8	2	Nil	137
BFG-50 Carbine	SS	8	2-3-4	6	3	Nil	67
(Bipod)	SS	8	2-3-4	6	2	Nil	88
BFG-50	BA	9	2-3-4	10	3	Nil	106
(Bipod)	BA	9	2-3-4	10	1	Nil	137
BFG-50 Carbine	BA	8	2-3-4	9	3	Nil	67
(Bipod)	BA	8	2-3-4	9	2	Nil	88
BFG-50A	SA	9	2-3-4	11	3	Nil	90
(Bipod)	SA	9	2-3-4	11	1	Nil	117

SSK .950 JDJ Gun

Notes: Originally designed as an experiment by SSK, the .950 JDJ Gun was then intended for production work after it's last

example was built, but the high cost (both in rifle in ammunition) and it's low utility in its intended role made SSK decide against production. The .950 JDJ Gun was actually designed as a big-game hunting gun instead as a military firearm, and it skirts the line in many countries between hunting rifle and "destructive device." (The fact that .950 JDJ comes only in ball ammunition and the relatively low muzzle energy compared to other 20-25mm-type rounds keeps the .950 JDJ Gun from being a destructive device in the US.) Ultimately, only three examples were built. These sometimes come up in online auctions; the last time one sold, it commanded a RL price of $125,000.

The .950 JDJ Gun uses a 33.5-inch bull heavy-bore barrel, tipped with a massive multi-baffle muzzle brake. Between the barrel and brake, the barrel is longer than many other rifles are, including their stocks and receivers. The first two examples built were of relatively crude construction without weight-saving measures, meaning that they are loads for more than one shooter to carry. The third example is less than half the weight of the first two, with a great deal of attention being paid to weight-saving materials and construction methods. Furniture construction is largely synthetic, with a straight-line design and with a thick recoil pad on the butt. The first two examples had no bipod and no sort of nods to comfortable carrying; the third has a bipod and has carrying harness swivels. The three examples of the .950 JDJ Gun were equipped with 7x Burriss scopes, and these are included in the price below.

The .950 JDJ round itself is essentially a short, fat bullet.

Weapon	Ammunition	Weight	Magazines	Price
.950 JDJ Gun (#1 & 2)	.950 JDJ	53.98 kg	1 Internal	$12693
.950 JDJ Gun (#3)	.950 JDJ	34.93 kg	1 Internal	$13159

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
.950 JDJ (#1 & 2)	SS	17	2-2-2	12	3	Nil	152
.950 JDJ (#3)	SS	17	2-2-2	12	4	Nil	152
With Bipod	SS	17	2-2-2	12	2	Nil	182

Stoner SR-50

Notes: This Stoner design was introduced in 1996. It was probably the last Eugene Stoner design produced before his death from cancer in 1997. It is a lightweight semiautomatic design that can mount a variety of sights and optics, though it was normally delivered to military forces with a Leupold 10x scope. It uses an unusual right-hand magazine feed, and the bipod is the same one on the M-60 machinegun. The right-hand feed allows the shooter to take a lower profile than he might be able to if a big magazine got in the way, and allows the receiver to be shorter without resorting to a bullpup design.

Twilight 2000 Notes: During the Twilight War demand by NATO armed forces for heavy sniper rifles for its special operations snipers meant that the SR-50 was used in large numbers As it is more accurate than most .50-caliber sniper rifles, it was much sought after.

Weapon	Ammunition	Weight	Magazines	Price
SR-50	.50 Browning Machinegun	14.28 kg	10	$5954

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
SR-50	SA	9	2-3-4	9	3	Nil	145
SR-50 (Bipod)	SA	9	2-3-4	9	1	Nil	189

Ultimate Arms Warmonger LR25-Magna

Notes: The salient feature of the Warmonger is its light weight. This is primarily due to the material of which it is made, designed by research as Ultimate Arms and its predecessor, Uselton Arms. This material is called by Ultimate Arms ZK Magna – an alloy of stainless steel, magnesium, with zircon chloride and zinc, along with some proprietary metals and materials. The result is a very light yet highly strong metal. The barrel is made of a different alloy with different ratios of materials than the rest of the rifle. This makes the rest of the rifle *relatively* lighter than the barrel. The barrel itself, without the muzzle brake, is a mere 2.27 kilograms, despite being 31 inches in length and having the standard (though unfluted) profile for a sniper rifle. The 18-inch and 24-inch barrels are correspondingly lighter. Despite the light weight, the barrels have all the strength of other standard sniper rifle barrels. In addition, the barrels are match-quality and the Warmonger rifles are essentially almost handmade, with hand forgings. The barrels are tipped with a 20-centimeter muzzle brake with five baffles, though further details have not been revealed. The trigger is a match trigger. Currently, several scopes and optic devices are being tested on the Warmonger. The Warmonger has a top receiver Picatinny Rail and short lengths of rail near the middle of the barrel at the bottom and both sides. The Warmonger is finished with a proprietary Ultimate Arms coating which is black in color. Of course, as a sniper rifle, a soldier's Warmonger comes with a single scope or optic of his choice.

Yes, *tested*. The Warmonger is currently available only to the Department of Defense, though they may one day be made available to others. Exactly who is testing the Warmonger or which units are in on the testing is currently unknown, though one could probably guess.

Weapon	Ammunition	Weight	Magazines	Price
Warmonger (31-Inch	.50 BMG	6.58 kg	5	$8052

Barrel)				
Warmonger (24-Inch Barrel)	.50 BMG	6.43 kg	5	$7789
Warmonger (18-Inch Barrel)	.50 BMG	6.18 kg	5	$7563

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
Warmonger (31")	BA	9	2-3-4	10/11	7	Nil	147
(With Bipod)	BA	9	2-3-4	10/11	3	Nil	192
Warmonger (24")	BA	9	2-3-4	9/10	6	Nil	99
(With Bipod)	BA	9	2-3-4	9/10	3	Nil	129
Warmonger (18")	BA	8	2-3-4	8/9	6	Nil	61
(With Bipod)	BA	8	2-3-4	8/9	3	Nil	79

Vigilance Rifles VR-1

Notes: Though relatively new to the firearms scene, Vigilance Rifles is headed by Keary Ritchie, who has about 20 years of firearms designs experience, mostly in heavy-caliber rifles. Though they are currently capable only of low-rate production, the VR-1 is acknowledged by many firearms designers as being a superior rifle. The VR-1, though the fore-end appears a bit lumpish, is a mean brute-looking rifle of considerable capabilities, and comes in four powerful chamberings.

The VR-1 is gas-operated, and coupled with a rotating bolt and a fixed ejector that improves reliability. The barrels are all 24 inches long, and tipped with a large multi-baffle titanium-alloy muzzle brake. The barrel is fluted to save weight, and has a bull profile. The muzzle brake is attached via threading, and it can be removed and replaced with Vigilance Arms' GSS suppressor (which is also quite large, but effective). The upper receiver is of high-strength stainless steel, and the lower receiver of high-strength aluminum alloy. The stock and fore-end may be of wood or synthetic. (The wood stocks look much better in my opinion.) The butt has a thick rubber recoil pad and the buttplate is adjustable for length of pull. The stock itself has a pronounced cheek swell. Atop the receiver is an integrated MIL-STD-1913 rail for optics. The smallest caliber the VR-1 is chambered for is .338 Lapua Magnum; this chambering was the last one in the current design, as the military has shown interest in a VR-1 chambered in that caliber. The other chamberings are much more powerful: .375 CheyTac, .408 CheyTac, and the unusual chambering of .505 Gibbs.

Twilight 2000 Notes: In the Twilight 2000 timeline, Keary Ritchie makes these rifles at request, assuming you can find his hideaway.

Weapon	Ammunition	Weight	Magazines	Price
VR-1	.338 Lapua Magnum	7.7 kg	5	$2702
VR-1	.375 CheyTac	8.82 kg	5	$3362
VR-1	.408 CheyTac	9.46 kg	5	$3606
VR-1	.505 Gibbs	11.5 kg	5	$4805

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
VR-1 (.338)	SA	6	1-3-Nil	8	2	Nil	113
With Bipod	SA	6	1-3-Nil	8	1	Nil	142
VR-1 (.338, Silenced)	SA	4	1-2-Nil	11	1	Nil	79
With Bipod	SA	4	1-2-Nil	11	1	Nil	98
VR-1 (.375)	SA	7	1-3-5	9	2	Nil	109
With Bipod	SA	7	1-3-5	9	1	Nil	136
VR-1 (.375, Silenced)	SA	5	1-2-Nil	12	2	Nil	80
With Bipod	SA	5	1-2-Nil	12	1	Nil	98
VR-1 (.408)	SA	7	1-3-5	9	2	Nil	117
With Bipod	SA	7	1-3-5	9	1	Nil	147
VR-1 (.408, Silenced)	SA	5	1-2-3	12	2	Nil	80
With Bipod	SA	5	1-2-3	12	1	Nil	98
VR-1 (.505)	SA	9	1-2-3	10	3	Nil	127
With Bipod	SA	9	1-2-3	10	1	Nil	160
VR-1 (.505, Silenced)	SA	6	1-3-Nil	13	3	Nil	80
With Bipod	SA	6	1-3-Nil	13	1	Nil	98

VM Hy-Tech VM-50

Notes: VM Hy-Tech is run by Valy Rosca, a Romanian immigrant who escaped to the US (via Yugoslavia) while it was still part of the Communist Bloc, and he now lives in Phoenix, Arizona. Working on firearms and machine shops since he was 14, he has since 2005 been producing small lots of some interesting .50-caliber rifles, most of which are bought by large-caliber rifle enthusiasts.

The VM-50R is a bolt-action rifle that is made of all-machined steel and aluminum. This results in a very rugged and durable rifle that can stand a lot of abuse. The action is utterly smooth, and little lubrication is necessary. The 7-position adjustable stock is primarily of aluminum, with an adjustable cheekpiece and a thick Pachmayr recoil pad; the buttplate is also adjustable for length of pull. The magazines are also machined and are as tough as the rifle itself; Rosca was not satisfied with the strength of existing .50-caliber magazines. The VM-50R has no iron sights; instead, the rifle has a MIL-STD-1913 rail above the receiver. At the end of the handguard is a steel VerPod folding bipod adjustable for height and cant.

The barrels of the VM-50R are made by Lothar Walther, and can be 18, 22, 30, or 36 inches with a bull barrel. (Custom profile barrels are also available upon request.) The barrel is free-floating and is tipped by a massive muzzle brake designed by Rosca. The trigger group is adjustable for pull weight (from three to fourteen pounds).

The VM-50S is a single-shot version; other than the lack of a magazine feed, the stock is adjustable for nine positions instead of seven.

Weapon	Ammunition	Weight	Magazines	Price
VM-50R (18” Barrel)	.50 Browning Machinegun	11.79 kg	5	$7623
VM-50R (22” Barrel)	.50 Browning Machinegun	12.08 kg	5	$7757
VM-50R (30” Barrel)	.50 Browning Machinegun	12.61 kg	5	$8026
VM-50R (36” Barrel)	.50 Browning Machinegun	14.97 kg	5	$8228
VM-50S (18” Barrel)	.50 Browning Machinegun	9.98 kg	1 Internal	$1855
VM-50S (22” Barrel)	.50 Browning Machinegun	10.23 kg	1 Internal	$1989
VM-50S (30” Barrel)	.50 Browning Machinegun	10.68 kg	1 Internal	$2258
VM-50S (36” Barrel)	.50 Browning Machinegun	13.15 kg	1 Internal	$2460

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
VM-50R (18”)	BA	8	2-3-4	8/9	3	Nil	68
With Bipod	BA	8	2-3-4	8/9	1	Nil	84
VM-50R (22”)	BA	8	2-3-4	9/10	3	Nil	91
With Bipod	BA	8	2-3-4	9/10	1	Nil	114
VM-50R (30”)	BA	9	2-3-4	10/11	3	Nil	140
With Bipod	BA	9	2-3-4	10/11	1	Nil	178
VM-50R (36”)	BA	9	2-3-4	11/13	3	Nil	180
With Bipod	BA	9	2-3-4	11/13	1	Nil	230
VM-50S (18”)	SS	8	2-3-4	8/9	3	Nil	68
With Bipod	SS	8	2-3-4	8/9	2	Nil	84
VM-50S (22”)	SS	8	2-3-4	9/10	3	Nil	91
With Bipod	SS	8	2-3-4	9/10	2	Nil	114
VM-50S (30”)	SS	9	2-3-4	10/11	3	Nil	140
With Bipod	SS	9	2-3-4	10/11	2	Nil	178
VM-50S (36”)	SS	9	2-3-4	11/13	3	Nil	180
With Bipod	SS	9	2-3-4	11/13	1	Nil	230

Zastava M-93 Black Arrow

Notes: This is a dedicated sniper's antimaterial rifle. It comes in heavy calibers. It is similar in appearance to the various RAI rifles, but is magazine fed. It is a large, powerful rifle with no iron sights, only scope rings. The standard scope supplied with the rifle is an 8x, and the muzzle brake is similar to the Barrett series.

Twilight 2000 Notes: This weapon does not exist.

Weapon	Ammunition	Weight	Magazines	Price
M-93	12.7mm Russian	16 kg	5	$8534
M-93	.50 Browning Machinegun	14.5 kg	5	$7898

Weapon	ROF	Damage	Pen	Bulk	SS	Burst	Range
M-93 (12.7mm)	BA	9	2-3-4	11	3	Nil	177
(Bipod)	BA	9	2-3-4	11	2	Nil	226
M-93 (.50)	BA	9	2-3-4	10	3	Nil	148
(Bipod)	BA	9	2-3-4	10	2	Nil	188