

Report of Daniel G Kemp:

1. I am currently a civilian employee of the United States Army, employed in the range division of the US Army Garrison, Fort Campbell Kentucky. I have been retained by plaintiff's counsel IN MY CAPACITY AS A PRIVATE CITIZEN. I am not speaking on behalf of the U.S. Military or any branch of government in this report or my testimony. NOTHING IN THIS REPORT SHOULD BE CONSTRUED AS SPEAKING ON BEHALF OF ANY GOVERNMENTAL ENTITY. This report is in rebuttal to certain purported expert opinions offered by others in this matter.
2. Except for a 1996-9 break in service due to a knee injury, I have been consistently serving in or out of uniform as an officer cadet, enlisted infantryman, defense contractor, or Department of the Army civilian employee since August 1991, specifically involved with small arms training both as a student and instructor. Even over that break I continued studying and shooting. I have shot competitively and in combat in Iraq in 2003-4 then again in 2005-6.
3. I have edited (quietly and without formal credit at the time) articles and manuscripts on modern small arms, specifically those of the US Army's 101st Airborne Division in which I served, for Philip Schreier, currently the director of the NRA's National Firearms Museum in Fairfax, Virginia. References available.
4. Since my youth, I either dragged my parents or after age 16 drove myself to every major military museum's small arms collection east of the Mississippi River, including the Smithsonian, the US Army Ordnance Museum then at Aberdeen Proving Grounds, MD, the US Army Infantry Museum at what was then Fort Benning, GA, Springfield Armory National Historic Site in Massachusetts, etc, etc. Instead of doing my homework, I was usually reading military history and studying antique and historical small arms.

5. I earned a master's degree in military history from Norwich University in 2012, and prior to that a bachelor's degree from the University of Mississippi.

OPINION

1. *Others have opined that many of the firearms covered by the Act can directly trace their origins to weapons developed for use in combat. As such, they were never initially intended for general distribution / sale to the public and were not initially intended for general distribution / sale to the public and still retain the relevant features and performance as when initially designed, manufactured, and issued for military use in combat.*

That line, or one close to it, from one of the State witnesses was what brought me into this mess, when I was asked for its historical rebuttal. While, as Rudyard Kipling once noted in his *Arithmetic on the Frontier*, 2000 Pounds of education can fall to a 10 Rupee Jezail, the better the firearm and the training of the user, the better the firearm for self defense.

Bottom line up front: Civilian owners having better rifles or other firearms than those on which US Army will spend its comparatively scarce budget dollars is a repeated fact of life older than the Republic, predating European settlement in North America, and was especially true at the time of the Revolution and the decades thereafter.

This goes back to the very conceptual difference between the rifle and the musket. This is going to require some explanation, but I will endeavor to make this as readable as possible without going to an eye-watering degree of historical depth or technical jargon until it is truly necessary.

Put very simply, a rifle barrel has helical grooves down its inner length, or bore, to impart a spin the bullet as it exits. For most of four centuries (i.e. until the 1850s/1860s) a musket did not. This made a critical difference in the evolution of the civilian versus military shoulder arm. The spinning is the important part if increased accuracy and longer range is desired. Anything else is for shotguns

which are outside the purview of this particular portion of the opinion. This simple trick of applied physics, shared with well-thrown footballs, drove parallel lines of evolution since the early 1500s.

Helical rifling appears in either Vienna or Nuremberg between 1499 and 1520. Sources differ. Suffice it to say whether it was Kollner or Kottler driving the breakthrough, rifling had to be engraved into a smoothbore barrel by hand, or hammered into it at its forging with a mandrel and hammer. This skilled labor was expensive, and so it would remain for decades to come. This was impractical for the mass issued military arms, and so rifles were privately commissioned for hunting by the wealthy.

Over time, and by time, literally think a couple hundred years, the price of the rifle would come down as the skill to make them spread, and with it an increased use by the populace, but the militaries of the then-known world refused to adopt them save for a few specialist troops. Why? Again, the rifling.

To get the round lead ball of the time to engage the grooves in the rifle's barrel, the ball had to be hammered down the three feet or so of barrel with the aptly named ramrod, this after pouring in the measured charge of gunpowder and putting in a bit of wadding. This took time and effort. The ball had to be deformed into the grooves to get the grooves to bite into the lead and spin the bullet out at the moment of firing. That in turn involved an ignition charge in a small external pan that would be ignited by the slowly smoldering end of a rope match (a matchlock gun) or later, the sparks of flint on steel (a flintlock gun). Sometimes only the charge in the pan would go off, leaving the main charge untouched and the bullet not sent on its way, hence the expression "a flash in the pan."

This effort took thirty seconds as a reasonable standard. Simple math says the average rifleman could then send two rounds per minute. A particularly gifted shooter with quality equipment might manage three. But black powder is nasty stuff, being as it is a mix of Sulphur,

charcoal, and a bit of saltpeter providing the potassium nitrate critical to the chemical reaction at ignition. It does not burn cleanly, leaving residue that quickly fouls the bore, making it harder to hammer in subsequent bullets. Over a short time, a unit of rifle-armed soldiers would fall from two rounds to one round a minute, then maybe none at all until weapons were broken down and cleaned. This would be necessary anyway, as black powder residue is badly corrosive. Rust and acidic etching will ruin an uncleaned barrel, and as mentioned, these were expensive items made by specialists.

How did the military solve this problem? By ignoring it.

For about three hundred and fifty years, the world's militaries simply skipped the rifling and dropped a slightly undersized lead ball down a smoothbore barrel. This gap made it much faster to get a ball down the bore, allowing a higher rate of fire, averaging four rounds per minute, with the sloppy tolerance also leaving a gap for burnt powder residue to accumulate harmlessly for a longer time before its buildup adversely affected the rate of fire. The relative lack of accuracy and shorter range was compensated for by massed formations of musket-armed infantry. Most people are familiar with movies of old wars where closely packed rows of men with muzzleloaders huddled up and fired all at once. That volley fire began with the Chinese in the late 1300s, and was copied by the Ottoman Empire who spread the tactic to Europe.

If opposing forces couldn't hit each other at a distance, they had to get close. Formations maneuvered on one another to gain tactical advantage. When the enemy got too close for there to be time to fire then reload again, a blade called a bayonet would be attached to the end of the musket, devolving the firearm to a spear. Gunfights became brawls. But closing the distance was

critical. Writing on the American Civil War, Daniel Wait Howe complained “it took a man’s weight in musket balls to kill him.”¹

The first documented military use of the rifle versus the musket came about in 1744, yes, two hundred and fifty years later, when Prussia’s King Frederick the Great raised a unit of forest hunters and gamekeepers to bring the range and accuracy advantages of the rifle onto the battlefield. By 1750, that unit was parceled out to support other units. This was not an ideal solution. The riflemen had not solved the rate of fire disadvantage, firing their several long-ranged aimed shots over a few minutes, and then they hid behind the far more numerous, bayonet-equipped musket-carrying infantry in the ranks.

The European settlement of North America brought German gunmakers to Pennsylvania, home of the usually misnamed Kentucky long rifle. Kentucky was a hunting destination with only a few fortified settlements out there in territory mostly held by the native tribes until after the Revolutionary War was complete. Now at the outbreak of that war, the rebellious colonials reached for whatever weapons were at hand. Daniel Morgan’s Virginia riflemen brought their personal muzzleloaders to the Revolutionary War, and more units were formed.

This not being a military history treatise and attempting to remain a technical document, a bit of historical detour is still necessary for context. The British Army took heavy officer casualties early to rifle-armed militia, as rifles were what the militia generally brought with them from home. The retreat from Lexington and Concord, Bunker Hill, or when 25 rifles held off four thousand British soldiers long enough to delay their boat landing at Throg’s Neck, New York. Benedict Arnold, before he turned his coat, envied Morgan’s command of the “shirt-tail men, with their

¹ Daniel Wait Howe, *Civil War Times*. 1861–1865. Indianapolis: The Bowen-Merrill Company reviewed in “Saturday Review of Books and Art”, *The New York Times*, 24 January 1903, p. BR3.

cursed twisted guns, the most fatal widow-and-orphan makers in the world.”² Timothy Murphy sniped Burgoyne at Saratoga in '77, which arguably won the battle which definitely brought in the French which definitely won the war and our independence.

Unfortunately, this skewed the popular history of the war in favor of rifle work when it was bayonet-armed smoothbore-carriers, carrying then state of the art military arms, who held the field at the end. There's an abiding mental picture of rifle-toting Continentals shooting from behind trees and boulders at lines of British redcoats, and that's rather inaccurate. Washington's riflemen couldn't hold the ground any more effectively than Frederick the Great's specialists could. Having fired until their barrels fouled, and not yet having built a well-drilled force of musket-carrying line infantry. Washington's forces would retreat when the British got too close with smoothbores and sharp objects, and they'd do the same thing again a month later. Washington's force could bleed a British force but couldn't hold the ground yet.³

After the Revolution was over, the fledgling United States Army contracted with famed Pennsylvania maker Jacob Dickert for a small number of rifles⁴, while the primary shoulder arm would be the Model 1795 musket coming from Springfield Armory in Massachusetts, itself a copy of the French Charleville smoothbore musket supplied as military aid during the war. Smoothbore rate of fire at close range with an available bayonet was still considered the cornerstone of infantry tactics. There were no restrictions I have been able to locate concerning possession of the higher rate of fire smoothbore musket, or bayonets.

² You can Google this quote and get a kaleidoscope of citations. I've seen it for years, and the best I can do is that it wasn't a London newspaper, it was Arnold's diary.

³ This would require a pages-long detour down the work of Frederick von Steuben at Valley Forge and after, the creation of genuine line infantry in the Continental Army, and the contrary example of a regular British force getting encircled and shot to pieces by militia riflemen from North Carolina and what's now Tennessee at King's Mountain. Ironically Patrick Ferguson, commander of that British force, had designed a serviceable breechloading rifle the British Army refused to adopt because it cost too much.

⁴ Kendig, Joe Jr. *Thoughts on the Kentucky Rifle in its Golden Age-Second Edition*. York, PA: George Shumway, 2002

For simplicity's sake, I shall elide over the 1803 Harper's Ferry Arsenal rifles (i.e. the Lewis and Clark rifles), the Tennessee militia at New Orleans in 1814, the 1819 Hall breechloader, and the limited issue M1841 rifle that was so named for the unit that carried it, the 1st Mississippi under then-Colonel Jefferson Davis down south in the Mexican War. There's enough detail there to fill several books and a few museums. Short version, it was still ninety percent muzzleloaders and everything generally issued to line infantry was still smoothbore. The only real improvement was replacing flintlocks with percussion caps.

Then while getting sniped at in what was then French North Africa by rifle-toting Algerian tribesmen in the 1840s, Captain Claude-Étienne Minié had an idea. He conceived of a hollow-base conical bullet that would fly better than the round balls of the previous centuries, while still dropping down the bore like a musket ball. The hollow base would catch the gases produced by rapid combustion of gunpowder and expand into the rifling grooves before departing the bore at a high rate of speed and properly spinning. The technical term for that is "obturation," not that it matters terribly much. Minié and a partner, another captain named Delavigne, had it perfected by 1847 and the French were issuing rifles to make use of it by 1849.

By 1853, the British had also adopted it, calling theirs the Enfield rifle-musket, and it made its combat debut in the Crimean War against the Russians (i.e. in an area known today as Ukraine). America followed suit in 1855, but the Maynard paper tape-priming system⁵ didn't work very well so it was regressed to percussion caps for the Model of 1861, the state of the art at the outbreak at the start of the Civil War. Including weapons already on hand like the M1842 smoothbore musket and a host of older weapons in state militia inventories, almost everything on hand at the start of the Civil War was still a muzzleloader.

⁵ Think of the red paper roll caps for toy guns when we were kids. Maynard priming was a nearly identical system. Now imagine trusting that system in all manner of weather under battlefield conditions. Yeah, I didn't think so either.

Well, the state of the MILITARY's art. There was a lot else on the menu.

A Connecticut inventor named Benjamin Taylor Henry had a sixteen shot .44 caliber magazine fed, lever-action repeating rifle available by 1860, but what he didn't have was the ability to make very many of them. Between 6 and 7,000 were made and most delivered to the battlefield, most of those being *privately* purchased. One, fired by Abraham Lincoln, is on display at the Illinois State military museum. This is compared to about a million Model 1861 and variant rifle-muskets from Springfield and its subcontractors.

Henry wasn't alone in pushing the technological envelope past the muzzleloader era. Christopher Spencer had a seven shot lever action, but the US Army was mostly only interested in his shorter carbine-length version for cavalry troops, supplementing and ultimately upstaging the single shot Sharps breechloader carbines the Federal cavalry had started buying. Hiram Berdan's 1st and 2nd Sharpshooters outfitted themselves with Colt revolving rifles and 1859 Sharps rifles.

The Indiana brigade under former businessman John T. Wilder was the most widespread, and certainly the best documented use, of advanced private purchase weaponry in the entire war. Wilder contacted his bankers back home in Indiana, pledging his iron foundry as collateral for the loan to buy a Henry for every man in his four regiments.⁶ This attempt failed since not enough Henrys were available from that small firm. Instead Christopher Spencer himself showed up in the brigade's encampment at Murfreesboro, Tennessee, and Wilder's brigade became outstanding customers for the Spencer Repeating Rifle Company of Boston, Massachusetts.⁷ They carried their Spencers and fought as mounted infantry, mostly moving about on "borrowed" mules. Mobility and

⁶ The 1st Brigade, 4th Division, XIV Corps if one was being formal, the 17th, 72nd, and 75th Indiana Infantry, the 98th Illinois Infantry, and the 18th Indiana Artillery Battery under future pharmaceutical millionaire Eli Lilly. The 75th would soon be exchanged for the highly experienced 123rd Illinois.

⁷ Baumgartner, Richard A. *Blue Lightning: Wilder's Mounted Infantry Brigade in the Battle of Chickamauga*. Huntington, WV: Blue Acorn Press, 2007.

and the Indians were using numerous lever action Henrys and Winchesters while the 7th had the short cavalry version of the single shot Trapdoor Springfields.

It was not until 1892 that the Army made the first effort to replace the Trapdoor Springfield. Licensing the Norwegian Krag-Jorgensen bolt-action, it was found inferior put up against the Spanish Mauser in Cuba, largely because of the stripper clip used by the mauser. Another great moment in non-issue weaponry occurred in Cuba when then-Lieutenant Colonel Theodore Roosevelt's 1st US Volunteer Cavalry used two privately purchased Colt M1895¹⁰ machine guns in 1898¹¹ when the Army still used hand-cranked Gatling guns.¹²

Three years after Roosevelt went up San Juan Hill, he was President, and one of the first orders he gave the Army was to copy the Mauser-style rifle.¹³ This happened in 1903, with significant improvements, including to the ammunition, in 1906. That "US Caliber .30 of 1906" cartridge is still with us, having fought four wars for the U.S., and innumerable hunting seasons since then.

Modernization lurched forward into what was too-soon called World War One then World War Two. While Mr. Yurgalitis makes reference to the "first" "assault rifle" being the MP44 or StG44, that is simply not true. In World War One, the Russian Avtomat Federov, in 6.5mm Japanese, was produced in the thousands of copies, and had all of the hallmarks of the modern

¹⁰ Interestingly, these two Model 1895 machineguns, better than anything in the hands of the U.S. Army at the time, were not chambered in the U.S. issue .30-40 Krag caliber, but rather, when the initial supply of ammunition was exhausted, it was determined that they were instead chambered in the same 7x57mm Mauser cartridge, used in the enemy Spanish rifles, allowing the use of captured enemy ammunition to keep the guns in use.

¹¹ The 1st had numerous wealthy New Yorkers in the ranks, and several of them wrote a check to Colt's in Hartford. One of the two guns, #164 is still missing, while #161 was found in a basement at Roosevelt's NYC residence nearly a century after his death. It is on loan to the NRA's National Firearms Museum. I just called them to confirm. <https://www.americanrifleman.org/content/the-rough-riders-potato-digger/>

¹² Lieutenant John Parker, nicknamed "Gatling" Parker for his actions below San Juan Hill, stayed on active duty another two decades, helping set up the US Army's machine gun school in France in 1917. One of his four San Juan Gatlings is also at the NFM.

¹³ This was done a bit too faithfully, and a patent infringement complaint by the Mauser Werke in Germany saw them receiving royalty checks from the Treasury until the US entered "The Great War" in April 1917.

firepower earned them the sobriquet the 'Lightning Brigade.' Interestingly, Confederate President Jefferson Davis armed his bodyguards with captured examples of the Henry.

With the Confederacy defeated, it was time to return to westward expansion and the Indian Wars. The Army immediately began purging its inventory of the Sharps and Spencers, deeming them wasteful of ammunition. Instead Allin at Springfield Armory designed conversions of existing rifle-muskets, cutting open the breech end and making a single-shot "trapdoor" rifle or carbine out of the muzzleloading rifle-muskets. At first these were fielded in .50-70, with a fifty caliber⁸ bullet atop 70 grains of black powder, a reduction from the .58 caliber rifle-musket Minie Ball, but then this was reduced further to .45-70. This cartridge is still beloved of Northern hunters for elk, large bears, and moose, long since having outlasted the Indian Wars and its use in the Spanish-American War.

Peace and the lack of military orders doomed the Henry Company, which was bought out by Oliver Winchester who then put out an improved version of the rifle, the Model 1866. The most visible change was adding a wooden forend to protect the user's supporting hand from a hot barrel, a similar function to what some now criticize as a "barrel shroud." The US Army didn't buy any, but the French and Ottoman Empire did. Sharps retooled for civilian hunting rifles perfect for buffalo or large bear⁹, while Spencer's market was glutted with surplus examples. He went bankrupt in 1868 and was bought out by Winchester.

The "peacetime" Army, refusing to be beholden to a civilian armament industry and obediently taking whatever the Chief of Ordnance and the staff at Springfield came up with to save a dollar, soldiered on with slight advancements in the Allin breechloader conversions of the Civil War rifles. Through trading posts, the Indians at Little Big Horn had better weapons than the doomed 7th US Cavalry Regiment. Battlefield archaeology can tell which bullets came from what,

⁸ Basically the same .50 caliber bullet diameter as the .50 BMG subject to PICA.

⁹ The Tom Selleck movie *Quigley Down Under? A Sharps*.

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“assault rifle”. But by the same token, so did the Model 1905 Winchester self-loading rifle, except a selector switch¹⁴. Even if sticking to World War II firearms, and at that to German ones, the Hanel Maschinenkarabiner 42(H), which was used at Cholm, predated the MP44 by two years. Julien Hatcher, as noted in Hatcher’s Notebook, referred to the MP44 as a “carbine”, and in many ways, it was simply a more powerful carbine, cheaper to manufacture, along the lines of the US M1/M2 carbine, by virtue of the use of steel stampings and welds, as opposed to well machined steel used in traditional firearm construction. But most of the other descriptions by Mr. Yurgealitis are simply wrong. For instance, the MP44 had no bayonet lug. Detachable magazines were common at this point. Even the German’s own G/K43 rifles used detachable magazines (also sans bayonet lug). As did M1 carbines, No. 1 and No. 4 bolt action Lee Enfields, and the like. The threaded barrel on the MP44, was for a blank adapter, for training, not a grenade launcher. In fact, self loading firearms of the time were often considered to weak to launch grenades, which is why, in, for instance, the American Army, the M1903 was retained for some time after the semi-automatic M1 was adopted, to launch grenades.

In any event, private inventors made their contributions John Browning supplied a machine gun designs that would serve in three American wars, and whose later variants still serve.¹⁵ His 1918 automatic rifle design saw action from the close of the Great War through Vietnam. His 1919 design can still be found in use in several nations. John Garand, a civilian engineer at Springfield Armory, designed America’s first issued semiautomatic rifle that’s still seen with military drill teams, but thirty years after Winchester made and sold their own civilian semi-auto rifle to the general public. Winchester then tried upstaging Garand with a scaled up version of the .30 carbine they were designing for Army Ordnance. That effort went nowhere.

¹⁴ Contrary to Mr. Spitzer’s suggestion, these early semi-automatic firearms were not for military, but rather civilian use. For instance, the Browning Auto-5 shotgun was first sold in 1905.

¹⁵ The current M2A1 heavy machine gun is Browning’s 1917 scaled up in 1921 for his new .50 cartridge.

The passage of the 1934 National Firearms Act with its restrictions and \$200 taxes (a not insignificant sum, as a Thompson with hard case and multiple magazines sold as a set for \$125) on machine guns slowed but didn't stop private invention. A \$200 dollar tax to make and register a prototype gun was just another chip to be wagered in hope of a large government contract. There was also tension between military designers and civilian inventors. Marine Corps veteran Melvin Johnson lost with his semiautomatic alternative to the Garand, but his light machine gun version of it was a better LMG than the Browning automatic rifle was. But the BAR was already in inventory and the Army owned the design, so it would be mass-produced. The "Johnny Gun" only saw service with a few special operations units. But the .30 U.S. M1 Carbine, for many years the most produced small arm in American history, was, in fact, adopted in 1941, just before the attack on Pearl Harbor, but, its cartridge was essentially the .32 Winchester Self Loading round, used in the semi-automatic Model 1905 Winchester, which had been on the civilian market for over 35 years at that point, and whose trigger group and magazine was almost directly lifted from the Model 1905.

Military establishments in the post-1945 cutbacks argued amongst themselves how best to modernize. Intermediate-sized cartridges, the proliferation of automatic weapons, and breakthroughs in mass production were leading to another revolution in firearms design. America was no exception, but small arms were a low budget priority behind jet aircraft and nuclear submarines, especially with literally millions of World War II surplus arms in inventory. It becomes a very complicated tale involving several contenders. The government employees at Springfield Armory in Massachusetts didn't wish to lose their jobs and when it finally came time to push a replacement for John Garand's twenty year old M-1, advocated for an allegedly improved M-1 they'd worked on for over ten years, adopted as the M-14. As an aside, the model for the FAL prototype was T-48, not T-88, as a state witness has stated.

Then came Eugene Stoner and the AR-15. It is simple, documented historical fact that the first military test of the design was in 1957 at Fort Benning, Georgia. Colt then bought the AR-15 design from the Armalite division of Fairchild Aircraft in 1959 since Armalite was a small firm in financial trouble, unable to handle a projected large military order. The dates of the initial Air Force purchase to replace its worn-out WWII produced M-1 and M-2 carbines, the preproduction Army order, all of these are clearly documented between 1961 and 1963. This is the same general time period that the U.S. Army sold 250,000 surplus M1 Carbines, mail order, to members of the NRA.

While the rifle was tied up in Pentagon bureaucratic fights with Army Ordnance and the older T44/ M-14 rifle since 1959, Colt was advertising (1962) and selling (1963) the civilian semiautomatic version in 1962 and 1963, starting with serial no. SP0001. Colt brought Miss America 1962 Maria Fletcher to their test range to shoot the new rifle in front of a photographer from Time/Life. The Army's first major purchase was announced that November¹⁶, but the Army did not officially adopt it until March 1964, subsequently receiving the first 2,129 rifles.¹⁷ Civilian availability of a National Firearms Act of 1934-compliant semiautomatic version for the hunting and police markets had been in Colt's plans before the Army ever said yes to a major purchase of the rifle, and in the 1964 time frame, actually sold more semi-automatic SP1 rifles to the public than select fire versions to the military.

Then came the real revolution of the AR-15's modular design, coming with Colt's loss of the AR-15 patent enabling a legion of copycats at the same time the new wars in Afghanistan and Iraq and elsewhere revealed a need for gadgets and gizmos attaching to the standard service rifle rather than replacing it.

¹⁶ <https://content.time.com/time/subscriber/article/0,33009,898054,00.html>

¹⁷ *Report of the M16 Rifle Review Panel" (PDF). Defense Technical Information Center (DTIC). Department of the Army. 1 June 1968. PDF in witness' personal files.*

Under military regulations, units could buy parts when they couldn't buy complete guns. Using my own personal AR as an example, it is 100 percent a better rifle than anything I was ever issued from 1991 until 2009. The only thing it can't do that my issue pieces could is rotate the selector lever 180 degrees instead of 90 degrees, going fully automatic. That's fine. I'll take a better barrel and better trigger for more accurate placement of the ammunition I'm carrying. All of which were developed for civilian sale at civilian expense, and later adopted by the military. Unless converting ammunition into noise for fun on a range, in my opinion full auto is a job for something stabilized on a tripod not really relevant for private self defense, in most circumstances. Rapid aimed semiauto fire wins competition matches and defensive shootings, and for the same reasons. Meanwhile, those gadgets and gizmos, superseded by later innovations, have made a lot of people a lot of money. The point of all of them, ultimately, is to improve the ability of the user to place accurate fire on target as simply, quickly and reliably as possible. This modularity is where modern firearms, like the AR15 types, really differ from their predecessors.

From the standpoint of criminal misuse of firearms, like the infamous Highland Park shooting cited by various persons affiliated with the defense in this case. That firearm was a .308 / 7.62x51mm rifle based on the AR10 platform. From the perspective of the criminal in that case, the AR10 provided literally no capability in terms of range, practical rate of fire or accuracy, over a .30-06 caliber M1903 Springfield or M1917 Enfield bolt action rifle of 100+ years ago. The same would be true of nearly any 1890s through 1940s era bolt action or semi automatic military rifle.

The benefit of the AR10, or AR15, or other such firearms, over the M1903 and the peers of its era, is that of ability to be manufactured, ease of use, ease of customization, and especially in the case of the AR15 pattern, low recoil and substantially reduced threat of injury caused by an errant shot. Rounds, like the .30-06, fired by the M1903 and M1 rifles, were designed to kill horses in cavalry charges, at range, which is why the cartridge became one of the most popular hunting

cartridges in the world. To compare the lethality of the .223 Remington / 5.56mm NATO round to the .30-06 round, is absurd. While Mr. Andrew speaks of the great killing power of the cartridge, a few things must be noted. First, the ban does not ban that caliber of ammunition, or anywhere near all rifles that fire it. Second, much of the effect described was early rhetorical sales literature by people trying to sell the firearm. The modern ss109 / M855 round 62 grain standard issue 5.56mm round does not tumble, and has been criticized for causing wounds like an ice pick. Dr. Hargarten, while perhaps a fine medical doctor, apparently has no idea no damaging civilian hunting ammunition is compared to most 9mm, 5.56mm or 7.62mm full metal jacket rounds fired by most of the subject firearms. In fact, a 12 gauge shotgun firing #8 birdshot at room distances is far more devastating than any military spec rifle round.

It is equally absurd to suggest that a .223 Remington / 5.56mm NATO round has an effective range in the thousands of meters. The M1 Garand, for its best sights, were only graduated to 1,200 meters. 300 meters is about the maximum effective range of a .223 round.

Additionally, in the case of an M16, that being a fully automatic firearm, is placed on the fully automatic setting, would, for persons not trained in handling fully automatic fire, likely be less effective than accurate, well aimed semi-automatic fire, simply due to the exponentially greater difficulty in controlling fully automatic fire.

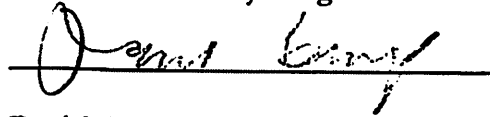
As to the body armor tests mentioned by Mr. Yurgealitis, it is misleading. Nearly any rifle cartridge will penetrate a Class II body armor vest, as will many handgun rounds. A .30-30 Winchester round, fired by a Winchester Model 1894 lever action rifle will easily penetrate a Class II body armor vest.

In summation; historically speaking, contrary to the suggestions of others, it has been civilians, not the military, in this country that have used, designed, possessed or manufactured the most advanced arms, and it has, usually, been the military who were using dated and inferior arms.

In addition, there is nothing about any of the firearms listed in the PICA ban that I am aware of, that makes any given round of ammunition fired from them more dangerous or lethal than common hunting ammunition available at most Wal-Mart stores. In fact, most of the firearms prohibited by PICA are in calibers that are usually produced in less lethal Full Meta Jacket configuration, to comply with Article IV of the Hauge Convention, that prohibits "inhumane" ammunition in certain international conflicts.

The bottom line, while made of modern materials, these regulated firearms are simply the evolutionary descendants of the Brown Bess musket and Kentucky Long rifle.

Dated: 6-09-2024

A handwritten signature in black ink, appearing to read "Daniel G. Kemp", is written over a horizontal line.

Daniel G. Kemp

CURRICULUM VITAE

Daniel G Kemp

3731 Reed Road

Indian Mound, TN 37079

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Civilian Education

University of Mississippi, Oxford, MS

BA, History, 1998

Minor in Military Science, Army ROTC 1991-1995

ROTC Rifle and Pistol Team

Ole Miss Pistol Club

Norwich University

MA, Military History, 2012

Military Experience

Ole Miss Army ROTC 1991-1995

Cadet officer in charge of the rifle and pistol team in 1994

Mississippi Army National Guard 1994-1996

- Acting Battery Executive Officer, B Battery,

1st Battalion, 114th Field Artillery in Winona, Mississippi

- Responsible for the training, welfare, and equipment condition of six M109A5 tracked howitzers and 89 personnel

U.S. Army 2000-2009

Eighth Army Honor Guard Company, Seoul, Republic of Korea

Squad breacher and designated rifleman

B Company, 3rd Battalion, 502nd Infantry

Fort Campbell, Kentucky 2000-2004

Designated Marksman, platoon radio operator, machine gun assistant gunner, machine gun section leader, fire team leader, began seven year run as Battalion/ Squadron Historian.

Headquarters Troop, 1st Squadron, 75th Cavalry

Fort Campbell, Kentucky 2004-2009

Additional duty as Squadron Historian while serving variously as Troop Armorer, Foreign Weapons Instructor, Captured Weapons Exploitation Lead, and other tasks.

Cubic Worldwide Technical Services, 2009-2013

Technical Instructor I

Subject matter expert in insurgency tactics, improvised explosive devices, and maintenance/employment of diverse antique, obsolete, and foreign firearms common among guerilla movements, especially in the Middle East

US Department of Defense, 2014- Present

Range Control Branch, Fort Campbell, Kentucky

Subject Matter Expert on small arms, training, range operations, and range safety issues.

Military Education

Squad Designated Marksman Course, Foreign Weapons Course, multiple technical exploitation courses. Inter-Service Range Safety Course.

Volunteer, Donald F Pratt Museum, Fort Campbell, Kentucky 2004-2018

In-house US Army Museum Artifact Preservation Course, specifically dealing with antique military firearms

Volunteer, National Firearms Museum 2004-present

Exhibit construction, curation, and historical content

National Rifle Association Collectors' Club Program Volunteer, 2007-Present

Evaluation of other organizations' exhibits per published criteria during competitions at the NRA Annual Meetings

Forty year collection of personal reference books on the subjects of military history, antique firearms, and firearms technology.

Thirty year collection of antique military firearms and traveling in collectors' circles

Publications

Edited "Guns of the 101st Airborne" for National Firearms Museum Director Phillip Schreier

Novels "Door Number Three" and "Doubling Down" dealing with military history content and firearms technical information.