The Los Angeles Silhouette Club

Marlin 1894

By: Glen E. Fryxell

At one point, the “2 guns chambered for the same cartridge” sales pitch had some real merit. After all, a cowboy riding herd in the late 1800s needed to be completely autonomous, he needed to be armed and he probably wouldn’t get into town for at least a couple of months. His saddle bags had very limited room for “kit”, so he needed to be able to cast and load for both his scabbard-gun and his sixgun with a single set of tools. Today’s shooter may be just as independence-minded as the cowboy of long ago, but most likely leads a more modern existence, with readily available ammunition and components, and if he does reload his own ammunition, it’s probably on bench-mounted presses and not with a tong tool over a campfire to a coyote serenade. We have easy access to sporting goods stores and mail order supply houses, with a far better availability of accessories, ammunition and components with which to feed our guns than shooters did a century ago. We have a multitude of cartridges available today, with something ideally suited for whatever task a shooter may have. As a result, shooters today generally own more than one gun, and these guns are chambered for more than one cartridge. So I guess we can pretty much throw out the “combo cartridge” sales pitch. Where does that leave the value of a lever action carbine chambered for *revolver* cartridges? Second to none, because ballistically speaking these are exceptional lever-gun rounds!

Marlin 1894 carbines in .357 Magnum, .44 Magnum and .45 Colt.

I have a confession to make: I’ve always been partial to the Marlin lever action design. While some may favor it for the closed top, allowing easy scope mounting (I prefer iron sights on lever-guns), I appreciate the solidly designed receiver and the fact that the top and bottom of the action are closed and protected from “stuff”. When still-hunting on a snowy day, have you ever fired a shot from behind a tree, only to be cascaded with snow from the branches above? An action that “exposes itself” during cycling allows snow, pine needles, tree bark, cigar ashes, etc. into the guts of the action, and personally I’d rather just have oil and ammo down there. The Winchester lever-guns are clearly one of the most proven, time-honored designs in firearms history, it’s just that my favor tends to fall on the Marlin side of the fence as a result of their keeping their private parts, well, private. However, the Winchester 94 captures all the benefits of the revolver rounds just as well as the Marlin 1894.

These attributes include: ***Short, light, easily handled carbines*** -- valuable traits for a home defense gun or for a "workin' gun", i.e. one that will be there always as ranch work, farm work, or whatever work is being done and is always there when it's needed, either defensively, or for targets of opportunity.

Modest recoil -- while many won't admit it, a significant number of shooters have trouble handling the recoil of the .44 Magnum cartridge in a revolver, but in a carbine, it's comfortable to shoot.

Excellent ballistics -- these aren't long range lasers, but 125 yard thumpers with the ability to shoot through pretty much anything if properly loaded, and this range covers most targets of opportunity (and defensive situations). As a general rule of thumb, you can get about another 300 fps over what a given load will deliver from a revolver.

Magazine capacity -- before the time of high capacity magazines, the lightweight lever-action carbines created the capability "to load on Sunday and shoot all week", these guns also provided the advantage of being able to top off the magazine without opening or deactivating the action (a valuable character trait for certain law enforcement or home defense situations).

Cast bullets -- these rifles and rounds are extremely well served by cast bullets, a trait long admired by the frugal and independent-minded.

Lever-guns can be finicky about cartridge OAL and bullet profile, and so a wide variety of bullet weights, profiles and designs were run through these three Marlin carbines in order to see what works and what doesn't. All testing was done with the factory buckhorn sights, with unmodified guns right out of the box (i.e. no modifications to carrier, chamber or throat). Unless otherwise noted, all groups are 5-shots at 50 yards.

.357 Magnum:

The Marlin .357 carbine was made with a 1 in 16" twist, so heavyweights were expected to shoot just fine. This characteristic may have something to do with why the .357 Magnum fired from a lever gun has been likened to the .30-30 Winchester -- heavier bullets at the higher velocities possible from a rifle have considerably more thump than can be achieved from a revolver. I've been on this handgun kick for about a decade or so now. This little Marlin re-introduced me to how much fun a plinking rifle can be. A .30 cal ammo can full of .38 ammo and this little Marlin makes for one very fun afternoon!

The .357 seems to be a little more finicky about smooth feeding than the other two rifles. The .357 also seems to be somewhat more finicky about which loads it shoots well. It shoots (and feeds) very well indeed with the right loads, but not all loads are up to its discerning tastes. On top of this, this gun has the distinct tendency to print different loads to different points of impact.

Obvious cast bullet choices for this lever-gun are the round-nosed flat-

pointed bullet popular in cowboy action shooting. Both the Lyman and the Lee Cowboy bullets cycle and feed flawlessly when loaded into .38 Special cases, and the Lee bullet also feeds very nicely when loaded into Magnum cases. The Lyman Cowboy bullet is short enough to feed from the magazine when loaded into Magnum cases, but doesn't make the transition from carrier to chamber very smoothly at this OAL. The LBT 200 LFN likewise is short enough to make the magazine-carrier transition, but also doesn't make it cleanly into the chamber when loaded into .357 brass. The Lyman 358429 / 358439 Keith SWC and HP are simply too long to make it out of the magazine when loaded in .357 Magnum cases. The 200 grain Lyman 35875 RN-FP is also much too long for Magnum brass. The LBT 180 WFN is not only too long for the longer cartridge case, it also has too much bearing surface forward of the crimp groove to even chamber when loaded into .357 cases. However, all five of these bullets (the LBT 200 LFN, the Keith SWC and HP, the Lyman 35875 and the LBT 180 WFN) cycle, feed and chamber very smoothly when loaded into .38 Special brass.

Some of the bullets that worked well in the .357 Marlin when loaded into .38 Special cases: the Lyman 358439, the Lee 358-158-RF, the Lyman 358665, the Lyman 358429, the LBT 200 LFN and the Lyman 35875 200 grain RNFP.

The Lee cowboy bullet over 4.5 grains of Bullseye in .38 Special cases gave fine accuracy (1 1/2" 5-shot groups at 50 yards) with an average (and very consistent) velocity of 1128 fps. When loaded over 14.0 grains of 2400 in .357 Magnum brass, this bullet fed quite smoothly, and delivered an impressive 1678 fps, but could only muster 4" groups at 50 yards. In general, the PB bullets shot better at more modest velocities out of the .357 Marlin.

In contrast, the Marlin .357 carbine did very nicely with the GC 358156 HP over 14.0 grains of 2400. 5-shot groups at 50 yards ran just under 2" and average velocity was 1721 fps. Expansion of this HP at this velocity is dramatic, to say the least -- this load is a rodent buzz-saw! This constitutes a very versatile, and personal favorite, load for this gun. The 358156 GC-SWC over the same powder charge delivered 1764 fps and even better accuracy. Both of these bullets feed flawlessly in the Marlin when loaded in .357 cases.

Another excellent performer was found in the LBT 160 grain WFN-GC. Again, 14.0 grain charges of 2400 provided excellent accuracy at 1674 fps. These loads fed and chambered without the slightest hiccup. Conveniently, this load printed to the same point as the 358156 HP discussed above (the 358156 SWC was another 1 1/2" to the right at 50 yards, go figure).

In contrast, the LBT 180 grain WFN-GC is too long to chamber when loaded into magnum brass, but it cycles, feeds and chambers just fine when loaded into .38 Special cases. When paired with 12.0 grains of 2400 in the shorter cases, this bullet provided so-so accuracy (with a tendency towards vertical stringing) at 1510 fps. A little fine-tuning of this load might correct this tendency however.

When the Lyman Cowboy bullet (#358665) was tried out in .357 Magnum

brass over 14.0 grains of 2400, it shot just fine, and while it was short enough to feed from the magazine, it didn't generally cycle very smoothly. Groups ran 2" at 50 yards and velocities hovered right at 1780 fps. This was the only PB bullet tested that grouped well at full-throttle magnum velocities, but rough cycling dulled the appeal of this combination (perhaps it would cycle more smoothly if cases were trimmed back another 0.010" or so). When this bullet was loaded into .38 Special cases and powered with 6.5 grains of HS-6, it cycled beautifully and printed nice round 1 1/2" groups (1100 fps).

Bullets that worked well in the .357 Marlin when loaded in .357 Magnum cases: the 358156 SWC, the 358156 HP, and the LBT 160 GC-SWC.

The Keith SWC and HP (358429 and 358439, respectively) are too long to make it out of the Marlin's magazine when loaded in Magnum cases, but if a shooter wants to use these bullets they function perfectly when loaded into .38 Special brass. For example, the 358429 SWC loaded over 12.0 grains of 2400 in .38 Special brass cycles effortlessly, and delivers 1556 fps and decent accuracy at 50 yards (this load should only be used in .357 Magnum firearms). Likewise, the Lyman 358439 154 grain HP loaded over 8.5 grains of HS-7 in .38 Special brass cycled just fine and shot beautifully. Velocities (1258 fps) were particularly consistent with this favorite load. Expansion of this bullet at this velocity is positive and dramatic when it's cast at a BHN of about 11 or so.

For whatever reason, this gun didn't seem to like the 358477, either in .38 Special or Magnum brass. In both cases it cycled just fine, it's just that accuracy wasn't quite up to snuff with this lighter plain-based bullet. In .357 cases over 14.0 grains 2400, accuracy ran about 3-4" at about 35 yards, and the HP version of same over 15.0 grains of 2400 generated 1970 fps and 3+" groups at 50 yards. The Lyman 358477 when loaded into .38 Special cases with 4.5 grains of Bullseye also gave 3+" groups at 50 yards, and 1149 fps. This short little bullet just doesn't seem to have enough bearing surface for this rifle's tastes.

Taking a look at heavier bullets, the 200 grain Lyman 35875 was called into action. This plain-based RN-FP was originally designed for the old black powder cartridges like the .38-45 Stevens (muzzle velocity of 1420 fps) and I thought that it might be right at home in the Marlin lever-gun. Because of the long nose found on this bullet, it could not be loaded into magnum brass, but it turns out that when loaded into .38 Special cases so it could be crimped in the top lube groove, the OAL is just about ideal to feed in the Marlin (1.580"). Loaded on top of 10.5 grains of 2400 and sparked with a CCI 550 primer, this bullet flew from the muzzle at 1319 fps and printed 3" groups. There were no signs of excessive pressure, but I believe that reducing this load slightly might lead to better accuracy. The LBT 200 grain LFN gave excellent accuracy on a very windy day when launched with 10.0 grains of 2400 at 1301 fps. These magnum level loads were also assembled using .38 Special cases since this bullet doesn't feed cleanly at the Magnum OAL.

As an interesting side note, .38 wadcutters feed just fine in the little Marlin. When the classic .38 wadcutter Lyman 358495 over 3.0 grains of Bullseye was test

fired, it printed a 1 1/8" 5-shot group at 25 yards at 894 fps, and cycled just fine. Basically, every bullet tested in .38 Special cases fed just fine (it's only with magnum brass that things get touchy). So much for needing round-nosed bullets to feed through a lever-gun...

Loaded with suitable ammo (e.g. Cor-Bon, Federal 125s, or even the FBI .38 load) the Marlin carbine is arguably THE definitive home-defense gun. Loaded with .38 Special ammo, there is no argument about it, the Marlin 1894 .357 IS the definitive plinking gun! The best plinking bullet is the Lee cowboy bullet, and a 6-cavity mould allows the caster the ability to make a lot of plinking ammo in a hurry! The best accuracy with PB bullets was generally found at 1300 fps and under, at full throttle magnum velocities this gun shows a definite preference for GC bullets. The best all-round bullets are the Lyman 358156 SWC/HP, and the LBT 160 WFN-GC. In my gun, the 358156 HP and the LBT 160 WFN both print to the exact same spot, so that's how the sights are set. Jack rabbits anyone?

.44 Magnum:

The 1 in 38” twist that the Marlin 1894 .44 Magnum was graced with often raises questions as to how well this gun might handle heavier bullets, so a wide spectrum was evaluated. Starting with the standard weight bullets, superb accuracy was obtained with the Lyman 429244, in both SWC and HP form, over 23.5 grains of W296 for about 1724 (265 grain SWC) and 1748 fps (253 grain HP). Both bullets cycle and feed just fine. The 300 grain GC-SWC's from both RCBS and Lyman (#429650) also feed just fine in my gun. When powered with 21.5 grains of W296, these bullets leave the little Marlin at 1708 fps and deliver decent accuracy. Lots of questions get asked about how well the SWC's feed from the magazine on a lever-gun, and while some folks have reported trouble with them in the past, this particular carbine doesn't seem to mind these four bullets (the Lyman 429421 has a slightly longer nose and does not cycle quite as smoothly in this gun).

A more traditional shape for the lever-gun is the round-nose flat-point. Such an ogive is found on the solid (i.e. non-HP version) of the Lyman 429640, which weighs about 290 grains when cast with WW alloy. Not surprisingly, this bullet cycles from the magazine well, and is quite accurate when launched with 22.0 grains of W296 for 1617 fps. The HP version of the 429640 also shoots quite accurately, but the fragile mouth of the Devastator HP tends to get dented and hang up if the action is cycled vigorously. A very similar profile is found on the LBT 300 grain LFN bullet, which feeds just as smoothly as the solid 429640. The 300 grain LBT LFN delivers 1711 fps and fine accuracy when powered by 21.5 grain of W296.

A somewhat more curvaceous RNFP is made by Saeco. On this 300 grainer, the meplat is slightly smaller and the ogive somewhat more curved, so it's no surprise that this bullet glides from the magazine like an enthusiastic Lab puppy on a freshly waxed floor. Once again, 21.5 grains of W296 provides good accuracy and 1679 fps. An even more voluptuous profile is found on the LBT 280 grain WFN. Loaded on top of 22.0 grains of W296 the LBT WFN is quite accurate and generates 1683 fps, but unfortunately this fine hunting bullet feeds poorly in my gun.

The 320 grain SSK FP is too long to cycle through the Marlin's action when seated to crimp in the crimp groove (although it shoots very nicely single-loaded). The expander ball on my Dillon die set runs .4275" and I size these bullets .430" With a bullet that has as much bearing surface as the SSK bullet, throat tension provides sufficient bullet pull to prevent recoil from shoving the bullet deeper into the case while the round is "waiting in line" in the magazine. I loaded this bullet up to an OAL of 1.638" and placed a hearty roll crimp over the forward driving band. Seating a bullet deeper into the case requires that the load be reduced accordingly. Case volume measurements revealed that case capacity had been reduced a little over 16%, so these loads were assembled using 17.5 grains of W296. This ammo cycled and fed beautifully in the little Marlin. Accuracy was excellent and velocity was 1414 fps. There were no indications of excessive pressure. This bullet is available from Lynn Halsted at Dry Creek Bullet Works.

Loads were tried with various 330, 340, 350 and 365 grain cast bullets and all were problematic. Either they would not feed smoothly, they would not chamber or they would not stabilize and were key-holing at 50 yards. The 330 grain GC version of the SSK bullet will not cycle when crimped in the crimp groove and I see no advantage to trying to seat it deeper as was done with the 320 grain PB version. The 320 will do anything the 330 GC version will do and do it better in this little gun. The Lyman 429649 340 grain RNFP feeds just fine from the magazine, but will not chamber due to the extended bearing surface on the nose of this blunt bullet. The 350s (LBT WLN and SSK) don't stabilize with the 1 in 38" twist. The take-home lesson here is that the 320 grain SSK is pretty much as heavy as you can go with the .44 Magnum Marlin.

Bullets that work well in the .44 Magnum Marlin 1894: the Lyman 429244 SWC, the Lyman 429244 HP, the Lyman 429640, the LBT 300 LFN, the Saeco 300 RNFP, the RCBS 44-300 GC-SWC and the 320 grain SSK (loaded short).

As an all-round working load for this gun, my first choice would probably be to go with the 285 grain Lyman 429640 GC-FP over 22.0 grains of W296 for (1617 fps), with a close runner-up being the 265 grain Lyman 429244 GC-SWC over 23.5 grains of W296 (1724 fps). My "hands down" first choice specifically for deer-sized game would be the 253 grain Lyman 429244 HP over 23.5 grains W296 (1748 fps). This combination is superbly accurate and hits like a sledgehammer. For larger stuff like elk, I would go with one of the heavier bullets, specifically the solid 429640, one of the 300 grainers (LBT, Lyman, RCBS, or SAECO), or the SSK 320 FP and not think twice about it.

The .44 Magnum in the Marlin 1894 is a somewhat more limited gun than is the .45 Colt, in that it seems to be choosier about which bullets it cycles cleanly with and in terms of bullets that will adequately stabilize with the lethargic 1 in 38" twist. It's an excellent little gun, and functions well with bullets in the 250 to 320 grain range.

.45 Colt:

The .45 Colt chambering of the Marlin 1894 is blessed with a 1 in 16" twist.

As a result it is capable of handling a wider range of bullet weights than is its .44 caliber little brother. Also, if my gun is representative, it seems that the fatter chamber opening is more forgiving in terms which bullet profiles cycle and feed properly through the action. Virtually everything tried fed slick as a whistle (the only feeding problem encountered was with a 265 grain NEI SWC, a variation on .451-275-PB, #317, a bullet with the forward portion very similar to the 452423; a very thick forward driving band, coupled with a very short nose, a tough combination for a lever-gun).

Testing was started off with the Keith SWC (Lyman 454424) loaded over 8.0 grains of HP-38. Excellent accuracy was obtained (5 shots into 1 1/4" at 50 yards) and an average velocity of 1186 fps was recorded. In today's age of magnum pressures and magnum velocities, is load may not sound all that impressive, but it will handle most situations with ample authority. In its own quiet way, the .45 Colt continues to deliver superb performance in the field when loaded to moderate pressures, just as it has for over 130 years.

When loaded to Ruger Blackhawk pressures (25,000-30,000 psi), the .45 Colt Marlin mirrors the performance of the .44 Magnum. A favorite deer load for my Blackhawks is the Keith HP (Lyman 454424 HP) loaded over 26.0 grains of W296, sparked with a CCI 350 primer. This brisk load generates 1345 fps from a 7 1/2" Blackhawk and 1731 fps from the Marlin. Superb accuracy is delivered from both guns and expansion is positive.

Dave Scovill of Handloader magazine designed a 280 grain SWC for the .45 Colt, inspired by Elmer Keith's original design criteria. The result was the RCBS 45-270-SAA, one of the finest all-round .45 bullets ever conceived. This bullet drops from my mould blocks at 282 grains when cast with WW alloy. Loaded on top of 13.0 grains of HS-6, this bullet delivers good accuracy and 1293 fps from the Marlin carbine. It's hard to argue with a 280+ grain .45 caliber bullet at 1300 fps. As a side note, I've found that HS-6 performs quite nicely with heavier bullets in .45 Colt (i.e. 280-320 grains), but with lighter bullets (e.g. 250 grains) and standard primers, I've commonly obtained erratic velocities.

NEI makes a lovely 310 grain FP bullet (listed on their website as cherry #322C, the PB version of .452-325-BB) that looks as though it was made specifically to feed through a lever-gun, and feed smoothly it does. With 12.0 grains of HS-6 to provide motivation, this shapely slug works up 1215 fps and groups to about 1 1/2" at 50 yards. With 21.5 grains of W296 the groups open up slightly, and velocity climbs to 1471 fps. A very similar profile is found on the gas-checked Lyman 452629 (the bullet that Lyman made for Freedom Arms and the 454 Casull). The Lyman 452629 over 21.5 grains of W296 generates 1482 fps and also gives satisfying accuracy.

The 315 grain WFN cycles just fine from the magazine, but unfortunately this fine hunting bullet won't chamber with the factory throat in the Marlin.

NEI also makes a beautiful 330 grain Keith-style SWC (cherry # 320, .451-310-

PB). In spite of its blocky appearance, this monolithic sledgehammer cycles, feeds and chambers fluidly in the Marlin. Paired with 20.5 grain doses of W296, this massive SWC delivers 1442 fps and 2" groups at 50 yards. This combination makes a very comforting companion in bear country. For those that don't cast their own, a very similar, and finely made, bullet is available from Dry Creek Bullet Works.

J.D. Jones of SSK Industries designed a series of bullets for the handgun hunter back in the 1980s (the moulds were made by NEI). These bullets are characterized by being large, heavy and blunt. They serve the lever-gun hunter just as well as they serve the sixgunner. The 335 grain SSK bullet for the .45 Colt is one of the most accurate bullets I've shot out of my 7 1/2" Ruger Bisley (NEI lists this as cherry #320A, .451-325-PB). When loaded on top of 21.0 grains of W296, this bullet leaves the Marlin carbine at 1484 fps, and accuracy is reasonable. The truncated cone ogive allows this bullet to feed flawlessly in the Marlin carbine.

Bullets that worked well in the .45 Colt Marlin 1894: the Lyman 452424, the 454424 HP, the RCBS 45-270-SAA, the Lyman 452629, the NEI 310 FP, the NEI 330 SWC, the SSK 335, and the SSK 368 (both made by NEI).

One of my favorite hunting bullets for both the .45 Colt and the 454 Casull is the 350 grain SSK FP (NEI lists this bullet design as cherry #320B, .451-345-PB). When powered by 19.0 grains of W296, the Marlin carbine spits this bone-crusher out at just over 1330 fps, with fine accuracy (2" at 50 yards). This load cycles and feeds like water through a funnel. This bullet is also available with an added bevel base to add a little more weight. With the bevel-base contour it weighs 368 grains when cast of WW alloy. This heavier version performs well loaded over 17.8 grains of W296, delivering 1276 fps and superb accuracy. The ogive and meplat are identical to the lighter 350 grain version, so it's no surprise that it cycles and feeds just as smoothly. Any of these SSK sledgehammers also make bear country a little less onerous, whether carried in sixgun or saddle gun, they are accurate, reliable, heavy and blunt -- precisely what the situation requires.

Note that the original .45-70 loads that earned it such a reputation as a "stopper" consisted of a 405 grain .45 caliber lead bullet at 1300 fps from the single-shot Trapdoor Springfield. The .45 Colt Marlin carries 10 rounds of the SSK 350 or 368 grain loads at roughly 1300 fps in a light easily handled 5 ½ lb carbine. This is a powerful and versatile combination.

The bottom-line for cast bullets that function well in the Marlin 1894 .45 Colt is that there are lots of excellent choices! They pretty much all seem to feed well and group well. For all-round usage, my first choices would likely include the NEI 310 grain RNFP, the Lyman 452629 GC-RNFP, or the RCBS 45-270-SAA. For hunting deer/antelope sized critters, I would opt for a cast hollow point, in particular the fine HP designed by Elmer Keith (454424 HP). For larger stuff like elk and moose, the choice is easy, the NEI 330 grain SWC or the SSK 350 grain FP, two of my all-time favorites.

While there may not be any *need* for the two guns/one cartridge sales pitch these days, the value of that concept is just as valid today as it was almost 110 years ago when the Marlin 1894 was drawn up, and that value is directly attributable to the outstanding performance of these cartridges. The straight case pistol cartridges employed in these light, fast-handling carbines carry a surprising amount of thump, and are very well-served by cast bullets. The .357 Magnum digests a wide variety of bullet designs when ammo is assembled using .38 Special cases, and the Lyman 358156 HP/SWC or the LBT 160 GC-WFN loaded in .357 Magnum cases deliver 1700 fps and excellent accuracy. The .357 Magnum is a fine little working gun, serving well for coyotes and other vermin, and properly loaded might make a handy little carbine for woods hunting deer. The .44 Magnum is best served by bullets in the 265-300 grain range, and cannot handle anything heavier than the 320 grain SSK bullet. While limited in terms of bullet weights, this carbine delivers bullets in the 265-300 grain weight range at 1600-1700 fps, providing the hunter excellent overall utility in the field. However, the bottom line is that the .45 Colt Marlin 1894 is a more versatile gun than is the .44 Magnum carbine; the .45 seems to smoothly feed almost any bullet you can stuff into a .45 Colt case, and the 1 in 16" twist stabilized every bullet weight tested, from 240 grains to 368 grains. Bullets lighter than about 310 grains all shot to pretty much the same point of impact at 50 yards, and the 330-350 grain bullets dropped down about 3" below that, and the 368s were about halfway in between. The .45 Colt Marlin is a remarkably egalitarian little carbine. Yup, the Marlin 1894 is a keeper, which might explain why Marlin reintroduced this Model in 1969 and has made so many since then.

- Glen E. Fryxell

The LASC Front Page Index to all LASC Articles

Glen E. Fryxell Article Index