

Gun Buyers Guide

Title: Gun Test

SAVAGE MODEL 12F CLASS 6.5x284 NORMA

Blurb: Search for a 1,000-yard sureshot starts here!

Blurb: By Todd Lofgren

I like “gun games,” most any type of gun games. My preference has always leaned toward “action-oriented” games like IPSC or Cowboy Action Shooting, but I’ve always been open to trying just about anything that includes the use of a firearm. One of the problems with liking too many games is that I’ve never been super-serious enough about any one type of competition to forsake all others in its pursuit. Because of that, I know a little about a lot of games but not a lot about any one in particular. Oh, I’ve managed to reach “Master” class in IPSC and do well enough in local Cowboy matches, but I’ve never gotten into one shooting sport so diligently as to give up the rest of them. I suppose at this late date in life I never will.

Still, a couple of years ago found me wanting to take up 1,000-yard shooting. The desire to play a new gun game has more to do with its availability than one’s actual desire to seek it out to play. Such was the case for shooting at 1,000 yards when a fairly local gun club began shooting this challenging long-distance sport.

My number one shooting buddy John Harrison was also interested in this game, so together we started planning our armament. We knew from our research that the 6.5x284 Norma, the 284 Win case necked down to accept a 0.264 of an inch-diameter bullet was pretty much the current cartridge of choice for this type of shooting, and it was my original intent to build a target rifle in this chambering when I ran across a used one in the *Gun List* that chambered a wildcat round formerly thought to be the best for this game. So, while John set about building a custom 6.5x284, I sent off a check for the used custom Remington Model 700 chambering a .30 caliber bullet housed in a necked-down 8mm Remington Magnum case known as the 30/8mm Mag or .30 Super.

My Remington had a 28-inch heavy-profiled Douglas Supreme barrel set into a nice more-varmint-than-benchrest-styled fiberglass stock to which I later added a Vais muzzle brake to help dampen recoil and a Jewel trigger for a trigger release that now measured in ounces rather than pounds. John built his gun around the then-relatively-new, single-shot Remington XR100 varmint rifle to which he added a 28-inch Pacnor barrel chambered in a tight-throated 6.5x284. He blueprinted (trued) the Remington action prior to barrel install and retained the factory laminated thumbhole stock whose barrel channel had been opened up to accommodate and free-float the new, heavier profiled barrel. We both used older optics from Leupold in the form of their now-discontinued 24x Target scope with fine crosshairs and a $\frac{1}{8}$ -inch-MOA dot.

Initially, the boys from the Tehama Shooters Association, the club hosting this long-range event, employed the Military 1,000-yard bull’s-eye target that spanned more than six feet square, having an X-ring measuring 10 inches across and a 10-ring twice that distance. Matches consisted of 15 rounds fired in three separate stages, and it was more than 1 to 2 years before one of the group (that would be my shooting pard John) was able to put together a perfect score of 150. You’ve got to understand that the 1,000-yard Tehama range is situated on rolling hills ranchland with targets set uphill some 35+ feet above the firing line. Any bullet traveling from bench to paper must cross a variety of terrain on its way to the target and encounters a myriad of varying wind conditions en route. Still, the more we played the game, the better we all got; some a lot better than others.

At the beginning of this year (2008) the Tehama boys switched to the much smaller but official International Benchrest Shooters Association target whose X- and 10-rings measured a diminutive (at 1,000 yards, anyway) 3 and 7 inches, respectively. To date, no perfect club scores have been fired on this new target, and a point total of 137 (out of 150) now stands as the record score to beat.

Gun Details

At the beginning of 2008 I began thinking about a new 1,000-yard rifle. While trying to decide just how deep I wanted to delve into this project, I happened upon a Savage brochure featuring their relatively new Model 12F-Class Target Rifle chambered in the 6.5x284 Norma, as well as the 6 Norma BR. Over the last several years Savage has gained quite a well-deserved reputation for producing accurate from-the-box bolt guns, and this seemed like it might just be the rifle (in factory form) I was looking for. A call to Savage got me a 12F-Class rifle chambered in 6.5x284 en route.

While awaiting the arrival of the Savage, I set about gathering up what I thought I'd need to ready this rifle for competition. Since my shooting pard John was already set up in this caliber, I arranged to use his set of Redding Competition loading dies and also talked him out of a box of virgin Lapua brass he had tucked away. Not wanting to have to "reinvent the wheel," I contacted one of the riflemen who regularly shoots for Team Savage to get his input on load development for this rifle. His recommendation was to try either Hodgdon H4350 or H4831SC powder, with either a Sierra 142 Match King bullet or a Lapua 139-grain Scenar projectile. He advised that since Savage used a standard spec chamber that neck turning wasn't necessary and that bullets seated back some 0.030 of an inch off the lands seemed to produce the best accuracy with this rifle.

The heart of the Savage Model 12F-Class rifle is its stainless steel, solid-bottomed, single-shot short action featuring a right-handed bolt and ejection port. This port is smaller than normally encountered on Savage's actions of this length to add to overall action rigidity. Being of solid-bottom design with no magazine cutout also adds to the stiffness of this action, which translates to a potentially more accurate rifle.

The Model 12 comes equipped with a tang-mounted, three-position safety; on safe at one end with the bolt locked, off safe at the other, while its middle position allows the bolt to be opened for unloading while the rifle remains "on safe." A good set-up.

The bolt on this Savage wears a massive handle for ease of operation and the bolt is of the three-piece design with dual opposing locking lugs. Its ejector is of the plunger type and its claw-type extractor is bolt-face mounted. Bolt removal on the Model 12 is a little awkward, requiring the depression of the bolt release and the pressing of its trigger rearward at the same time, but once mastered presents little difficulty. The trigger on the F-Class rifle is Savage's most excellent "Target" AccuTrigger, which can be user-adjusted anywhere from a low of 6 ounces to 2 pounds. The one on my test rifle arrived set to break at 13 ounces, and I've not seen a need yet to adjust it.

For those of you not familiar with the AccuTrigger, it's a trigger system developed by Savage and first released on selected production rifles back in 2003. This new trigger system incorporates a projection on the face of its trigger (picture the trigger found on a Glock), which must be completely depressed in order for the rifle to fire. This trigger system is so designed that it cannot accidentally discharge from being dropped or jarred, even when the pull is adjusted to its lowest setting. It is owner-adjustable by simply removing the rifle's action from its stock and adjusting its trigger return spring with the Savage-supplied special tool. Although the AccuTriggers supplied on most Savage production rifles are adjustable from a low of 1/2 pounds to a maximum of 6 pounds, its Target AccuTrigger allows for a much lighter release. To achieve such a light release with no creep or travel requires minimal engagement surfaces and, as such, the Target AccuTrigger is very sensitive to mechanical jarring and to how its trigger is

depressed. Savage warns that touching the side of the trigger shoe (not pulling the trigger straight back) or cycling the bolt too briskly will “de-cock” the rifle. I can attest to that having both events happen during my testing of this piece. Due to the design of this trigger system, the rifle cannot discharge when this happens but will require re-cocking (lifting the bolt) before it can be fired. Okay, so gently closing the bolt was easy enough to learn, but I had to re-cock this rifle numerous times when first firing it due to my angle of attack on its trigger. I guess I’m used to the Jewel trigger in my .30 caliber rifle, which is forgiving to my slightly off-center pull. Having shot this rifle for a time, I’ve now trained myself to position my firing hand such that I’m pulling the Savage’s trigger straight back and this problem (uncocking) has all but disappeared. If this sounds like extreme criticism of this trigger system, let me state for the record that it is not, and this is the finest trigger I’ve ever experienced on an unaltered factory rifle.

The barrel on the 12F-Class is described by Savage as being “extra-heavy” in profile, and that, it is. Measuring 1.115 inches at the receiver tapering to 0.990 of an inch at its muzzle makes for one stout tube. Like its action, the Savage’s barrel is fabricated from stainless steel and measures 30 inches in length. Produced entirely by Savage, it is button-rifled and both the 6.5x284 and 6 Norma BR come with a twist rate of one turn in 8 inches (1-in-8). Like all of their current bolt guns, the F-Class uses Savage’s unique barrel-nut attachment system that allows for a cost-less method of barrel install that has consistently produced rifles of exceptional accuracy.

The stock on the F-Class is an attractive laminated affair composed of alternating layers of natural and gray-dyed birch. Its design works equally well for shooting from the prone position (F-Class) or from the bench using a bag or mechanical rest. Its forearm is flat-bottomed and measures 3 inches across the flat for extra stability when coupled with an appropriate front rest. It is ventilated on both sides and bottom to help with barrel heat dissipation and is pillar-bedded to its action. Its barrel channel is cut such that its barrel is free-floated back to its barrel nut. Three stock bolts secure action to stock.

The F-Class comes sans sights and is drilled and tapped for scope mounting. My overall impression was that this was one darn nicely assembled arm and I could find to fault with its fit or finish. Nice job, Savage.

Scope Mounting

A call to Brownells got me a one-piece scope base for the Savage F-Class rifle made by Farrell Industries precision machined with 20 minutes of built-in elevation (Brownells Part No. 100-001-145AB) that allows for the use of either Picatinny- or Weaver-type rings. This built-in elevation allows one to sight in for 1,000 yards without using up all the elevation capabilities of one’s scope and keeps scope adjustments toward the middle of their adjustment range rather than at their extreme. In the case of the 6.5x284, to hit center at 1,000 yards requires that your rifle be sighted in to hit in the neighborhood of 27 inches high at 100 yards. A goodly number of today’s scopes don’t have that much adjustment in them to begin with, hence the need for the modified base. Although I tried several different Picatinny-type scope rings, I eventually secured my 24x Leupold to the Savage using a set of low Millet Angle-Loc rings to keep the scope as close to its bore as physically possible. With scope in place I turned to load development.

Load Development

To make a long story much shorter, I tried several different charges of H4350 sparked by a Fed 210 Match Primer to push a Sierra 142-grain Match King bullet at velocities ranging from around 2830 feet per second (fps) to 2960 fps. Although I got some three-shot groups that measured in the mid-3s (that would be 0.35 of an inch or so) at 100 yards, I just knew this rifle could do better. Switching to H4831 SC (the SC

designating “shortcut”) and a match-grade primer from CCI eventually led me to some pretty consistent three-shot groupings in the mid to high 2s (that, remember, indicates that three consecutive shots were hitting within about 0.25 of an inch of each other). That’s darn good accuracy for an out-of-the-box rifle. I guess I should mention that, although I didn’t know how many shots had gone down its bore before I got this gun (beyond the three that had been fired from it to produce the test target that had accompanied it), I still cleaned it thoroughly before initial firing and then took care to properly break it in by firing one round and cleaning it for its first 10 shots and then cleaning it again after every 6 rounds until I had around 30 rounds through it. It now comes clean easily with a minimum of effort and elbow grease.

In case you hadn’t noticed, I’ve deliberately neglected to mention the details of the load I eventually settled on for this rifle. I’ve done that because I think it may be on the warm end for this cartridge/rifle combo and it might prove to be too warm once the weather around here heats up. For load data for this cartridge I recommend you consult a current reliable loading manual, so neither this magazine nor I get to meet any of your friendly attorneys.

With a good load now developed for the Savage, I was ready for my first 1,000-yard match.

The Match

November 15th, 2008, near Red Bluff, California turned out to be a bright, sunny, almost windless day, perfect for 1,000-yard shooting. Sixteen shooters turned out for this month’s competition and I drew the second relay, which put me on the firing line at about 10:00 AM. The wind was, for all practical purposes, nonexistent for the first relay and conditions hadn’t changed that much before the second relay took to the line. By then, the wind flags showed a little movement, but conditions were still excellent. Although I’d never fired the Savage at 1,000 yards before, I had sighted it in to hit 27 inches high at 100 yards, so figured it would be close at 1,000. It was, and it only took five or six shots to put it and me in the center of my sighter plate located just below my paper target. After the sight-in period, shooters were given 10 minutes to fire their first string of five rounds for score. Targets were then changed, followed by a second sight-in period, and then five more rounds were fired for score. This was repeated a third time, and we all hoped that during those three strings conditions hadn’t changed too drastically. It only takes a change in wind speed of 5 mph (if blowing at 90° to the shooter) to move a 142-grain Sierra some 32.8 inches by the time it reaches 1,000 yards. That could easily move one’s shots completely off the official IBS 1,000-yard target we shoot on. The wind is not your friend.

The bottom line: The Savage and I came in third with a score of 128-1X out of a possible 150. My best five-shot group was its first and it measured 9.84 inches. For our first time out together (me and the Savage), I was pretty pleased with the results. A score of 129-0X by Bud Dean (shooting a custom rifle built around a Savage action) took second place, while our Match Director Ron Tilley, firing in the last relay with the worst wind conditions, fired a score of 133-3X to win the match with a rifle he’d rebarreled the night before. Go figure. Nice shooting, Ron. That will give the Savage and me something to “shoot” for.

Although my first impression of the Savage F-Class rifle was that it would be a great “starter gun” for anyone interested in pursuing long-range shooting, I now believe that this gun has got the potential to be a real competitor against any and all challengers. Team Savage continues to prove this. So, if you’re looking to break into the long-range game and a high-dollar custom boat-tail launcher is not in your current budget, check out the F-Class from Savage – it’s got a lot of bang for your buck. And speaking of bucks, I guess I’d better get a check off to Savage because the gun has found a home.

Specifications: SAVAGE MODEL 12F CLASS

<u>Caliber:</u>	6.5x284 Norma, 6 Norma BR
<u>Barrel:</u>	30 inches
<u>OA Length:</u>	50 inches
<u>Weight:</u>	13.3 pounds (empty)
<u>Sights:</u>	None, drilled and tapped for scope
<u>Stock:</u>	Laminate (gray)
<u>Operation:</u>	Short bolt action
<u>Finish:</u>	Stainless
<u>Price:</u>	\$1341

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Leupold & Stevens, Inc.

14400 NW Greenbrier Pkwy, Dept CH
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www.leupold.com

Tehama Shooters Association

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Photo Captions

1 (DSCF2370):

The Tehama Shooters Association began their 1000-yard contests using the much-larger and easier-to-score-on target but now utilize the much smaller International Benchrest Shooters “official” target.

2 (DSCF2373):

Savage uses a small-ported, solid-bottomed, single-shot stainless steel action in the construct of its Model 12F –Class rifle.

3 (DSCF 2378):

The 12F-Class uses Savage’s “Target” AccuTrigger, which is user-adjustable from a scant 6 ounces up to 2 pounds.

4-5 (DSCF 2381 & 2382):

The Savage’s F-Class incorporates a laminated birch stock with a 3” wide, flat forend vented both on its bottom and sides to aid in barrel cooling.

6 (DSCF 2384):

To get the elevation required for 1000-yard shooting, the rugged Farrel Industries' one-piece base, obtained from Brownells, with 20 degrees of elevation machined in, was used to mount the author's 24x Leupold scope.

7 (DSCF 2388):

The Model 12F-Class has a buttstock appropriately shaped for Bench- or F-Class shooting.

8 (DSCF 2391):

The heavy 30" target barrel of the Savage ends in a precise target-grade crown.

9 (DSCF 2393):

The very first five rounds fired on paper at 1,000 yards from the Savage formed this respectable 9.836" group.

10 (DSCF 2398):

During load development the author got the Savage to print these very encouraging 100yd. groups.

11 (DSCF 2400):

The smaller 6.5x284 produces long-range performance very similar to the .30/8mm Mag pictured next to it, but does so with much less powder and punishment.