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Welcome to 3-Gun

“You’re not in Kansas Anymore”

For years USPSA shooters have been bringing repeating rifles and shotguns to USPSA matches, finding ways to apply the pistol-oriented USPSA/IPSC rules to the use of long guns. At the same time, military and tactical shooters have been coming together under various flags, using the USPSA/IPSC rules as a base, but tweaking the equipment rules and scoring to better fit their needs. The list includes a bevy of police-only matches, the Wylie Coyote, and the North Carolina Tactical series, and the Soldier of Fortune World 3-Gun Match held in Las Vegas, Nev. In the USPSA arena, the most notable of these matches were the matches conducted in Area 4 by Troy McManus. The interest generated by these earlier matches and the lessons learned formed the basis for more extensive USPSA support and interest in recent years.

Meeting Of The Minds:



USPSA President and multi-year USPSA 3-Gun Champion Michael Voigt.

test, and rules changes spearheaded by Voigt tightened up the allowed equipment, bringing USPSA competition more in line with Soldier Of Fortune (now reborn

as the SWAT Magazine match). Under the leadership of USPSA President Michael Voigt, USPSA brought 3-Gun competition “in house” in 2000. Although USPSA-endorsed 3-Gun events have been going on since May of 1990, they were normally conducted by outside contractors. Under the Voigt administration, 3-Gun was raised to a “true” national-level con-

test, and rules changes spearheaded by Voigt tightened up the allowed equipment, bringing USPSA competition more in line with Soldier Of Fortune (now reborn

as the SWAT Magazine match). The 3-Gun Nationals moved to Las Vegas that year, capitalizing on in the infrastructure of the then-troubled Soldier of Fortune match. Combined with a concerted editorial push in *Front Sight magazine* trumpeting USPSA’s new emphasis on 3-Gun competition, this total effort achieved extraordinary results..

The first two events in Las Vegas all but sold out. An Area 1 3-Gun event sprang up. Shotgun-only events sprang up, and Benelli, Browning, Remington, and Winchester shotguns started flying off the shelves, propelled by USPSA members joining 3-Gun competition in earnest. (Winchester’s SX2 Practical model showed the world the

Susan Hildebrandt at the USPSA Area 1 3-gun championships. (Photo by Robin Taylor.)



viability of this “niche” market.) Shooters from military and tactically-oriented groups began coming to USPSA 3-Gun as well, bringing with them new ideas and new equipment. IDPA shooters thrilled by the challenges of long guns and by the freedom of the USPSA rules swelled the numbers of 3-Gunners with shooters with a decidedly tactical bent.

Big-name firearm manufacturers have since leapt into the fray, marketing purpose-built rifles and shotguns for practical matches. Cable TV shows are showing up to cover the major events, and the normally staid National Rifle Association has begun covering 3-Gun matches as well.

Ready to get started? This supplement offers some hints on how your club can take advantage of the lessons we’ve learned about conducting 3-Gun matches. Please take the time to read this guide carefully. If established safety rules are followed, 3-Gun competition is as safe as handgun competition. There are some additional safety issues and range operations issues that are not present with pistol matches, however, and we’ll highlight those you are most likely to encounter.

Moving Forward:

With the help of this supplement, your club could become the nexus for 3-Gun shooting in your area. Well-run 3-Gun events aren’t easy to find, and the knowledge we’ve compiled in this supplement should propel you into a strong start. We’ve divided this supplement into four sections: the overview (which you’re reading now), plus sections for shotgun, rifle, and manually operated rifle. While the overall rules are the same for all the USPSA/IPSC disciplines, the application of those rules demands a certain amount of thought. The capabilities of each weapon type differ dramatically, and the answers to questions like how to use steel targets, disappearing targets, and no-shoots change from gun to gun. Troy McManus has been heading up the 3-Gun rules effort in the United States, and serves on the IPSC rifle rules committee.

For the following section, we’ve drawn heavily from McManus’ article in the September/October 2002 issue of *Front Sight* magazine, wherein he helps interpret section 12 of the 14th Edition of 2001 rulebook.

What Defines A Rifle/Shotgun?

McManus tells us that U.S. 12.1.8 defines a rifle/shotgun as consisting of a “specific receiver, barrel, and stock combination.” This means that you can’t swap barrels between stages and still be competing with the same gun you started with.

Where Can I Carry Ammo?

Anywhere you like, as long as it’s not in your hand. The pistol rules are more restrictive, but U.S. 12.1.11 lets you carry your ammo on your person or on your firearm. That means you can attach ammo carriers to your arm, leg, chest, shotgun butt or forearm, you name it.

Power Factors:

US 12.1.12.1 spells them out:

Rifle = 340 major, 160 minor

Shotgun = 20 gauge minimum (no minor)

Ready Conditions:

U.S. 12.4.1 defines the “Ready Condition” for long guns, and these are generally chamber loaded, magazine in, gun cocked, and safety on. An important note is that bipods must be both folded and collapsed (fully retracted). Also, the sling must be in the carry position, and not pre-looped and tensioned for those long off-hand shots.

US 12.4.2 spells out the normal “Ready Position,” but the way the rule is written allows the shooter to start with the gun mounted and aimed at the target, so long as the safety is on and their finger is off the trigger. If you’d rather have something different, be sure to spell out exactly what you have in mind.

Position Shooting

Check out US 12.4.3 for good “legal” descriptions of the different shooting positions used for long guns. Normally these are only used for standards-type exercises.

“Load And Make Ready”

Budget some extra time for shotgun shooters, since most will have to load their magazines following the “Load and Make Ready” command, as spelled out in 12.4.4.1.

“Unload And Show Clear”

There are two major differences here, again spelled out in 12.4.4.1

First, make sure the shooter has totally unloaded any fixed magazines — just inspecting the chamber area isn’t enough. Benelli shotguns in particular will not feed rounds out of the magazine when the shooter pulls the bolt back. To feed ammunition from the magazine, the operator must press a shell release button on the receiver.

Once the RO says “Gun Clear,” the shooter must close the action and drop the hammer or firing pin by pulling trigger. Then, the action is locked open again before the range is declared “Clear.”

Miscellaneous Targets

In addition to all the approved USPSA/IPSC targets, “miscellaneous” targets may be used.

Sometimes these targets present a different challenge to the shooter, such as the A-zone-sized shotgun plates used at the USPSA 3-Gun nationals. Sometimes they make the course easier to score, such as the MGM flash target, or self-resetting poppers of several types. Various frangible targets can be used as well (eggs and full soda cans make spectacular novelty targets, but they’re expensive and very messy). Since these and the metal targets can have a 10-point value placed on them, they can help balance out the point spread in multi-gun matches without having to have (and carry, and set up) literally tons of steel targets.

Target Calibration

Calibrate rifle and shotgun poppers using a 9mm pistol at 11 yards, using the procedure outlined in Appendix C of the 14th edition 2001 rules. Non-standard “miscellaneous” steel targets can’t be calibrated, so prior to the match, test each target with an appropriate gun to make sure it won’t cause problems for you during the match.

Safe Weapon Carry And Storage:

“I can’t stick it in a holster and ignore it like I would a

pistol, so just what is the safe carry mode?”

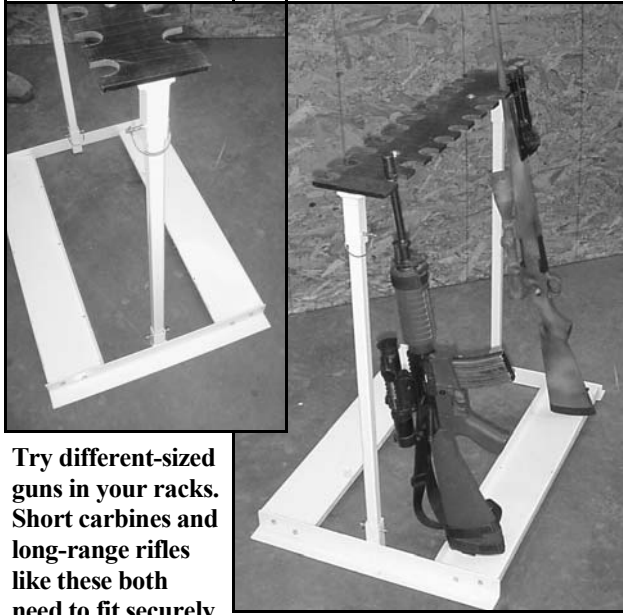
USPSA encourages transporting each firearm inside a case when possible, with the action open and magazines removed. Unfortunately, the heat build-up in a rifle or shotgun can melt the padding used in many synthetic-fiber rifle cases, so the empty rifle must be handled uncased for at least part of the match. When a case is not used, all shooters must carry their guns locked open, with the muzzles vertical. While this is not specifically stated in the 14th edition rules, it is still considered “best practice” for long gun handling, and is likely to be added in subsequent revisions.

CHAMBER-EMPTY FLAGS... To further increase the margin of safety, many clubs ask shooters to use some form of chamber-empty flag. Standard chamber-empty flags that protrude into the chamber itself don’t always work well in USPSA events because the guns can heat up enough to melt the flags.

Instead of molded plastic flags, Patrick Sweeney passed on this suggestion from the clubs in Michigan. Before your match, purchase a reel of brightly-colored 1/4” rope. Cut the rope into 18-inch sections, and have them available at registration. (An old soldering iron works well if you use nylon or polypropylene.) Tie a knot on one end of the rope, and drop the loose end of the rope through the ejection port and down through the magazine well on a rifle. The knot should hold the rope in place, since it won’t

Jim Wall reaches out for four self-resetting steel targets at 325 yards. The targets sit between the paper targets visible below. (Photo by Patrick Kelley.)





Try different-sized guns in your racks. Short carbines and long-range rifles like these both need to fit securely.

Collapsible racks like this work well, but built-ins are cheaper and often more solid. (Photo by Mike Gibson.)

pass through the narrow ejection port of most .223-cal rifles. For a shotgun, or open-topped rifle like the Mini-14 or M1 Carbine, insert the knotted end into the action and lower the bolt. This form of safety flag works well on many firearms (particularly those that don't stay open readily) and since it doesn't protrude into the chamber, it has less tendency to melt and stick. Use of a chamber flag is NOT REQUIRED, but in the opinion of many it does materially increase the level of safety at a match.

GUN RACKS... Having an abundance of gun racks will go a long way toward increasing safety by reducing the amount of casual gun handling. Most gun racks are built with hunting rifles in mind and are too tall to handle a short-stocked carbine — much less a Mech-Tech pistol

conversion or anything with a folding stock. If you're building a rack up from scratch, keep these shorter-than-normal firearms in mind.

While you're de-

Racks don't have to be expensive. This design seen at the 2003 Area 1 3-Gun folds for easy storage, and only has seven pieces, not counting hardware. (Photo by Robin Taylor.)



signing your racks, consider where the rack will go, and whether it will be stable enough to withstand being bumped into by a competitor, or blown over by a gust of wind. (A crosswind blew over a gun rack at the first Area 1 3-Gun championships, damaging several guns and breaking a scope mount.) Likewise, if your racks only accept guns from one side, build them wide enough that they won't overbalance and fall.

Gun Handling Policy

USPSA suggests a policy statement that reads: "All long guns must be racked or cased when not in use. When moving an empty long gun without the case, carry it with the muzzle UP. Chamber-empty flags should be in place whenever possible."

Inconsistent safety rules create traps for shooters, since they don't know what to expect. Whatever policies your range adopts, make sure you make them very public.

A certain amount of off-the-firing-line gun handling needs to happen to replenish on-gun ammunition carriers (which should happen while the gun is racked), but beyond this, long-gun handling should be kept to a minimum outside the safety area. Just like in pistol, **NO ONE CAN HANDLE AMMUNITION IN THE SAFETY AREA, DUMMY OR OTHERWISE. THIS RESULTS IN A MATCH DQ** per rule 10.3.1.4.

Dealing With Heated Guns

Range officers need to be doubly aware of their shooter's gun handling techniques. New shooters in particular will come to the line, having practiced reload techniques that only work when the barrel is cool (Masaad Ayoob's "Stressfire" system is designed around a short-barreled police shotgun, which balances at or behind the receiver. If the shooter grabs a longer shotgun at the balance point, at the base of the barrel, he may be seriously burned.) Watch for them. Shooters not only burn themselves, but may drop loaded guns. If you're unsure of what a new shooter is going to do, ask him to pantomime a reload for you.

Division Management

For reasons of simplicity, most match directors will only recognize Open and Limited divisions when running a multi-gun match. Each competitor must select one or the other, and cannot mix and match. This greatly simplifies the scoring procedure within EzWin-Score, and allows the match to issue meaningful combined scores for 2- or 3- or 4-gun matches at day's end.

3-Gun Disqualifications

According to the 14th Edition 2001 rules, a USPSA 3-Gun event consists of three SEPARATE contests within a single event: a pistol match, a shotgun match, and a rifle match. Rule 10.2.1 reads in part “a match disqualification applies to one particular match.”

If a shooter disqualifies, he may not continue in the EVENT. However, if the shooter has already completed any one match, that match score still stands. He may not shoot additional scores of any kind, and will be removed from any incomplete matches, but if he has completed a match, that score stands. Put another way, if the shooter has “finished” one of the matches, his disqualification should not apply to that match.

This is known informally as the “safe harbor” rule.

3-Gun Paperwork and Reporting

USPSA currently has no classification or national championships slot distribution system for rifle and shotgun. However, clubs can earn activity credit, and offer classifier courses through the pistol portion of each 3-Gun match. Since 3-Gun matches are made up of three SEPARATE matches, (rifle, pistol, and shotgun) you only need to submit paperwork on the pistol portion — greatly simplifying the process. At major tournaments, USPSA uses the shooter’s pistol classification as a rough gauge of their overall 3-Gun skills.

THE ELEMENTS OF A GOOD *LONG GUN* STAGE

Before you start drawing up stages, let’s revisit some of the design elements which make up a good stage.

SAFE Safety is built in from start to finish. The power of our long guns dwarfs that of a pistol — that’s part of why they’re so much fun. However, these weapons are quite capable of mangling your expensive steel targets, making them dangerous to shoot at. They’re very hard on backstops as well.

Also, it doesn’t take long to accumulate enough spent shotgun hulls to become a tripping/slipping hazard. A garden rake and garbage bag work well for clearing them out of the way quickly.

CHALLENGING BUT FAIR... Can shooters using open-sighted rifles SEE all your targets easily? Are the targets large enough that an average pistol shooter can score hits on them with a rifle?

EFFICIENT... Consider this one carefully. Longer-range rifle courses in particular are terribly prone to match-stalling hang-ups. How can each stage you design be run more efficiently? How long will it take to score your most distant targets?

Credits:

Our thanks to our team of reviewers that helped USPSA’s Robin Taylor assemble this document. The list includes: Arnie Christianson, Mike Gibson, Patrick Kelley, Troy McManus, Michael Voigt, Floyd Shoemaker, Patrick Sweeney, Dave Thomas, and Patrick Winslow.

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Shotgun

“The Ultimate Power Tool”



Course Design Philosophy

As Pat Kelley once said, “Shotguns are the ultimate power tool.” Designed for multiple shots at moving or fast-appearing targets, shotguns perform well at pistol distances. However, when loaded with slugs, practical shotguns are capable of hand-sized groups out to 100 yards, punching the target with hundreds of foot pounds of steel-denting, target-frame-mangling energy.

USPSA approaches the shotgun as primarily a shot platform, with slugs playing a significant minority role. At our national events, approximately 10% of all shotshells fired contain slugs. (This differs from German BDMP competition, for example, where competitors fire large numbers of slugs.)



Fred White dusts a target thrown by an MGM “Pigeon Flipper” while RO’s look on. Note how White’s pellets will fly over the backstop. This range has an impact area behind the berm that is several hundred yards deep.

USPSA believes shotgun courses should emphasize speed and movement, including moving or flying clay targets where possible. Moving efficiently while reloading a shotgun is not easy.

In fact, one can easily DQ oneself by tipping or pointing the shotgun the wrong way while loading. (ROs, be warned.) Likewise, maneuvering a shotgun through doors, around barricades, etc. is much more difficult (and generally slower) than with a pistol. When conceiving courses for the shotgun, keep these factors firmly in mind.



Mark Anglin at the MGM “Ironman” 3-Gun. (Photo by Robin Taylor.)

Frangible Targets

Frangible targets rarely appear at pistol and rifle events, but you will find yourself using them frequently for shotgun. Many clubs employ small wire cages that hold a clay target rather than use knock-down steel at close ranges where splatter might damage props. Loading these cages is often faster than re-setting steel. Cans of soda explode beautifully when hit solidly, as do eggs, but they make a terrible mess. If you use soda, consider buying tonic water or something similar. A case or two of splattered Pepsi has a way of attracting insects. Also, scoring soda cans can be a pain if the shooter doesn’t hit them well. Is the can leaking? How about a pellet strike that doesn’t pierce the can? (Specifying that the shooter must pierce the can to score in the course description helps a lot.)

Normally scoring stationary frangible targets is easy, with no calibrations to worry about. If it has a hole in it, it’s hit. However, make sure your target HOLDERS are up to the task. If a competitor shoots the target stand and

the target falls out and breaks, does the target score? Answer = No. That's range equipment failure, the competitor must re-shoot the course.

FLYING Frangible Targets

Nothing draws spectators like a handful of flying or rolling targets. Poll your club members, and you will probably find a few that have small clay throwers that could be staked in place and tripped by attaching a pull cord to a falling Pepper popper. Not many ranges have high enough backstops or deep enough impact areas to use fliers, but if you do, we encourage them.

The MGM "Pigeon Flipper" works marvelously in this role, and often doesn't require a big investment. This teeter-totter like device bolts to the back of a Pepper popper. When the competitor knocks down the popper, the weight of the popper slams down on the teeter-totter, catapulting a clay pigeon (or two) straight up. Using the same device with a US popper throws the clay less high. Simplified steel "Pigeon Flippers" have been used by cowboy action competitors for some time to throw chunks of charcoal into the air. Charcoal launched this way doesn't fly as high, and still "powders" nicely when hit. Unfortunately it's very hard to see against a dark background.

Score your flying targets as 10-point disappearing targets. (Once the target hits the ground, it has "disappeared.") The competitor receives 10 points for breaking the target in the air, but will not be penalized for missing or failing to shoot at it once activated. Setting these targets in groups with other steel targets lets competitors shoot targets as the clay is launched. If they can do that, then pick off another 10 or 20 points in the air, their hit factor will be out of sight. If they have to wait for the target, mathematically it's not worth the risk, and the seasoned competitors will ignore the clays.

Setting your fliers to appear early in the course, followed by a long move (where a competitor can reload easily), will help encourage shooters to engage them. Putting them early in the course works better, since equipment failures are common. If a flier fails, the shooter **MUST** re-shoot, and that goes much quicker if you don't have to re-set the entire stage.

Steel Targets And Shotgun Slugs

Use great care when shooting steel targets with shotgun slugs. Good quality, 500 Brinell, full-size Pepper poppers will generally last for years upon years, but if a competitor slams a popper that's not quite that hard with a full-power slug (notably Lightfield, Winchester, Brenneke sabot), it will be irreparably damaged.

Mike Gibson, president of Mike Gibson Manufacturing and match director of the MGM "Ironman" 3-gun, explains:



USPSA shooter Kelly Beale had to have this shotgun slug fragment surgically removed from his thigh. Beale's injury didn't look serious — from the front. This frag penetrated his cut-offs (below) and several inches of flesh to leave a bruise the size of a silver dollar visible on the BACK of his thigh.

"Slugs and full-power .44 Magnum loads have enough energy that they actually displace the target material."

Gibson's company has made steel for the USPSA 3-gun Nationals for years, and has done considerable testing with both rifle and shotgun loads in an effort to create a target that was "safe" for both.

Gibson reports: "One-inch thick plate steel, when hit with a slug or a .44 Mag, will create a volcano crater on the face of the steel. It won't bulge out the back, but it will create that volcano crater, with distinct corners that can return (fragments) back toward the shooter."

To be clear, Gibson isn't talking about over-the-counter .44 Magnum ammunition intended for whitetail deer hunting, or the low-recoil slugs so popular with shooters today. He's talking about full-power (often sabot) hunting slugs, and the super-heavyweight .44 Magnum ammunition made by men like John D. Jones (inventor of the .375 JDJ cartridge).

Even with perfectly flat steel and all the right components, slug fragments can ricochet off the target base and fly back uprange at high speed, injuring participants.

Using swinging targets, or knock-down targets without a protruding base



Kelly Beale performing the "flip and burn" reload technique. Because of barrel heat build-up, Beale and others who use this technique wear a glove on their left hand.

helps, but the practice is just too dangerous to attempt at ranges inside 50 yards.

“Anything below 30 yards, you better have a medic standing by,” says Gibson.

Larger targets tend to be damaged more easily, and as we mentioned earlier, some slugs can be much more destructive than others. There is a safety issue associated with using steel (particularly soft steel), so use due caution. Unless you’ve got considerable experience with this, consider keeping your slugs off the steel. It’s safer and cheaper in the long run.

Steel Targets And Buckshot

Buckshot doesn’t have the same focused impact that a slug does, so it much less punishing when used on steel targets. Some ranges will ban buckshot if their steel isn’t quite up to snuff, but that’s an effort to protect the props, not a USPSA rule. Tightly-patterned buck *at close range* can slowly bend a soft Pepper popper until it looks like a potato chip. The solution? Set your Pepper Poppers out at 15 yards or more, and use steel plates for those close-in shots. Placing a tire to catch the popper when it falls also reduces the amount of bending.

Some clubs frequently unbolt and turn their poppers around in their stands, so that shots hit what was the “back” of the popper, straightening it back out. Unfortunately, that now dome-shaped surface tends to throw splatter back uprange. If you have a means of pressing the popper flat without shooting at the rounded “back” of the target, that’s a much better choice.

Course Design Strategy: Slugs

The presence of slug targets has a profound impact on competitor strategy and range safety. For maximum safety, many match directors will lump all their slug targets into a single stage such as the El Presidente. Alternately, the match director will group the slug targets at one end of the course. Placing the slug targets this way reduces the likelihood of a competitor engaging a steel target with a slug accidentally. The idea is



Floyd Shoemaker driving his Open-division Remington 1100. (Photo by Pat Kelley.)

to avoid creating a “loading strategy contest” instead of a shooting contest.

With that in mind, placing a slug target 50 yards out from the last box makes sense from a safety standpoint, but it will take a long time to score and repair that target between shooters. Better to shoot the slug targets first, then advance toward them during the “shot” portion of the stage.

Setting your slug targets at 25 to 50 yards reduces the amount of wad damage inflicted on the target, demands more of the shooter in terms of accuracy, and offers a more realistic “slug” target presentation. Keep in mind that repairing a slug target takes time – about three times what repairing a pistol target takes because of the size of the slug and wad holes. Full-power slugs intended for deer hunting seem particularly bad, ripping big wad holes in the target at long distances.

Most new shooters will have little idea where their shotgun shoots beyond 25 yards, so using wide-open targets makes sense. The good shooters will be rewarded with high point totals and faster times, and the new shooters will learn a lot about their guns.

Course Design Strategy: Shot

Shot loads are surprisingly ineffective against steel plates. Yes, buckshot loads can spank a target down as though slapped by some unseen giant, but buckshot loads can also totally miss a 6-inch plate at 30 yards because of the large holes in the pattern. How the competitor sets up his shotgun in terms of pellet size, choke, gauge, and charge weight will affect his effectiveness on steel. A cylinder bore gun firing birdshot is devastatingly effective inside 15 yards, but beyond that, the pattern expands too far to tip over much of anything. In general, most competitors will use 1 1/8 ounce of No. 6 shot, fired through a modified choke 12 gauge. That will push over properly calibrated IPSC targets to 20 yards and a little better. Standard 6-inch plates (such as those found on a Bianchi-style plate rack) are particularly difficult to tip over beyond that range.

Match directors, it pays dividends to test each plate beyond 20 yards with a modified-choke gun like that above, just to make sure the target CAN be toppled with a standard load. If the competitor chooses to use cylinder bore on that stage, that is his choice, but he may have great difficulty getting the steel targets to fall.

WOOPS! Wrong Projectile

No matter how carefully you set up your stages, eventually someone is going to shoot a slug at a steel target, or a shot charge at a paper target.

Slugging the steel target can be dangerous, particularly if the steel is too soft to handle it. The RO has license to stop the shooter if he’s afraid the shooter is about to make the same mistake again, citing range equipment failure.

Why range equipment failure? Soft steel that is perfectly safe for shot can be deeply cratered by a slug, ruining the steel and slinging lead frags into the gallery on the first shot. Even super-hard steel targets set inside 40 yards present a safety problem. To let the shooter continue shooting AT STEEL, particularly soft steel, with slugs in the gun puts the shooter at risk. RO's please note, the shooter has made, at most, a PROCEDURAL error. You're stopping him because the RANGE EQUIPMENT puts him at risk, that's a rule 4.5 "range equipment failure" — which earns a mandatory re-shoot.

For a shot charge fired at a paper target, there is no clear rule on the subject in the 14th edition 2001 rules. With luck this will be fixed in upcoming editions, but for now, common practice is to ignore the pellet strikes. The target has been "engaged" but not struck by a slug. The shooter can re-engage the target with a slug if he likes. If he does not, the target should be scored as a miss, with no failure to engage or procedural penalties applied.

Scoring issues like these are another reason why USPSA encourages course designers to keep their slugs on slugs-only stages, or at the very least concentrate all their slug targets at the front end of the course.

Stacked Pepper Poppers

Setting Pepper Poppers one behind the other makes a surprisingly deceptive target with the shotgun, since many shooters can easily double-tap the first popper with a shotgun (thereby missing the second). Experienced shooters will deal with this challenge easily, but new shooters can end up leaving the box prematurely, stopping, and running back. If you're going to RO such a stage, watch for this.

No-Shoot Targets

As of this printing, any hit on any no-shoot target (steel or paper) counts as a hit, no matter how small.

Under this rule, if a shooter accidentally engages a no-shoot target while firing shot, he could conceivably score 200+ no-shoot hits with a single pull of the trigger. For this reason we strongly advise AGAINST using paper no-shoot targets on shotgun stages — particularly those involving birdshot. (Please note, there is a movement afoot to allow knock-down no-shoot targets, so check the most recent rules revision.)

Round Count

"The biggest problem with the shotgun is that it is always empty," quipped USPSA president Michael Voigt.

The shotgun's limited magazine capacity puts the shooter's ability to reload on center stage. Solving the problems of where to put your ammunition, keeping track of what sort of ammunition is where, how to load it, etc.,

is part of the challenge of shotgun. Short courses are arguably more "realistic" for the use of the shotgun (just as they are in pistol), but they are by no means the "only" way to go. Be creative. High round counts are okay. Short round counts are okay. Variety is best. It's not uncommon to see long courses of as much as 25 rounds, followed by two short strings of perhaps six.

Course Design Strategy: Mandatory Reloads

When specifying a mandatory reload on a shotgun course, please remember that the shooter is obligated to load only ONE shell.

Cleanup

Shotgun matches can be spectacularly messy when compared to rifle and pistol. Since most 3-Gunners don't reload, plan on bringing a couple of garden rakes and some big garbage bags along to help with cleaning up the spent hulls and wads. If your range has a lot of grass, get cleaned up before the mowers come around. Apparently the wads have a tendency to foul lawn mowers, and hulls become sharp missiles thrown by the mower blades.

Send the bags home with a volunteer to be disposed of properly. Don't burn them. (Beyond the environmental concern, the resulting stench and fumes are horrible. Some burning plastics give off phosgene gas — one of the chemicals used in trench warfare during WWI.)



Hershey's Kisses? Troy McManus recovered these spent slugs (fired at 50-yard Pepper Poppers) at the 2003 3-Gun Nationals. McManus' rifle-grade steel was undamaged after hundreds of impacts. Pistol-quality poppers would have been deeply cratered by each shot.

3

Rifle

Taking DVC to 350 yards



Course Design Philosophy

Where shotguns excel at speed and sheer power, rifles excel at accuracy. Modern rifles such as the AR-15 are also capable of amazing firepower and quickness for short-range work. Finding courses that test all of those characteristics isn't as hard as you might think.

Technically, the rifle portion of USPSA 3-gun shooting is better described as "carbine" shooting. Ranges rarely stretch further than 300 yards and courses may involve 25 required targets. That doesn't mean they aren't extremely demanding for the rifleman. Intimate knowledge of your specific rifle is key.

SAFETY NOTE: Barrel Heat

While pistol and shotgun barrels do heat up over the course of a stage, rifle barrels quickly reach hazardous temperatures. A RO from the 2001 USPSA 3-Gun Nationals told us about one shooter that forgot this. Over



Kelly Beale on the AR-15. Note the double scope on his rifle. Red dot scope for close range, high-magnification scope for long range. (Photo by Robin Taylor.)

the course of the stage, the shooter shot up two magazines of ammunition (roughly 60 rounds) before he gave up in disgust. The shooter stood up, then grabbed the barrel of his rifle. When his hand closed on the barrel, the RO heard the sizzle. Pieces of skin stayed baked onto the barrel.

OUCH!

If you're dealing with new shooters, take the time to point this out.

Course Set-up

Setting up a short-range rifle course is easy – set up a pistol course, just without the steel. Long-range rifle is another story. Because of the distances involved, consider buying a handful of self-resetting targets. You can engage these targets repeatedly in a stage by making the shooter change positions.

If that's not an option, consider setting up duplicate paper targets with large numbers painted on the face and a good deal of space between to prevent cross-firing. Shooter No. 1 engages long-range target No. 1, then shooter No. 2 engages long-range target No. 2. during his run, etc. This complicates the instructions to the shooter a bit, but speeds up reset considerably.

Many a match director has made the mistake of setting paper targets at 200+ yards in a field course. As a target, they make perfect sense, but when you consider the delays associated with walking 200 yards down to the target, scoring the target, and walking 200 yards back FOR EVERY SHOOTER IN THE MATCH, you quickly understand why self-resetting targets are so useful. A single 100-yard target will quickly grind an RO into the dirt. Motorized transportation helps, but it still takes time to score long-range targets.

Knock-down steel targets at 200 yards are even worse. On top of all the re-set problems, standard .223 ammunition is not particularly hard-hitting. Setting the target



Short stocks are popular among tactical riflemen. They trade steadiness for maneuverability. At club matches, pistol caliber carbines like this MP5 fired by officer Brian Baker are popular. (Photo by Robin Taylor.)

Rifle

where it will fall when hit, but not be blown over by the wind can be almost impossible. Standard poppers in particular invite difficulty. Stick to plates or US poppers if you must use knock-down steel, and have gasoline-powered transport standing by to carry a re-set team downrange.

When setting up those self-resetting targets, think carefully about how they will react when hit. What happens when a bullet strikes the target base or frame? Could that impact be mis-interpreted as a hit on the target? Some target designs need to be set up with sandbags and/or tires in front of them to keep low hits from causing confusion.

Scorers

Whenever you run self-resetting steel, plan on having a good set of binoculars or a spotting scope available. Designate someone as a scorer, and rely on them to call “HIT!” when bullets impact the distant targets. Until the target moves, he alone can tell if a particular round hit the target, or hit the target frame instead. The two look and sound very similar at a distance.

Be aware that this can be a terribly imprecise process, leading to problems and delays. To keep those problems and delays to a minimum, use only a handful of such targets. Why? If you use too many targets, or create a complex course, the scorer and the shooter can get out of synch, with disastrous results. USPSA learned this lesson the hard way on rifle stage 1 at the 2003 3-Gun Nationals. That stage had to be totally rebuilt and re-shot because of this and other scoring issues. The heroic efforts of that RO crew brought the stage in an hour or so behind schedule, but they endured a lot of suffering because of it.

In short, if the scorer is watching the wrong target — he will make the wrong call. Keep the course simple or use dependable knock-down targets. You’ll have fewer problems on match day if you do.

Ricochet Warning

When setting targets at distance, be very conscious of ricochet. Should a rifle or pistol round impact the range floor, it will often bounce back up — behaving more like a high-speed baseball than a bullet. Set your

Safety Note: Slings

Encourage your shooters to remove their slings from their rifles prior to dashing through any field course that involves props like doors or walls. If their sling catches a prop as they go running by (such as a door handle), the sling will whip the shooter into the prop, with their momentum carrying their body AHEAD of the muzzle. This doesn’t happen very often, but it’s scary when it does.

USPSA Limited 3-Gun champion Bennie Cooley is well-known for his skill with the AR-15. (Photo courtesy of Bennie Cooley.)



targets AGAINST THE BERM so that any rounds that fall short will bounce into the backstop. If you look around, many modern ranges have short, intermediate backstops. They’re there to catch ricocheting bullets that might otherwise reflect up and out of the range. According to research done by Luke Haag of the Association of Firearm and Toolmark Examiners (ATFE.org), even dry sand will reflect rounds up and out.

Steel Targets And Rifles

One shooter with an AR-15 can quickly turn all your steel into expensive scrap. Standard .223 ammunition will do terrible things to steel that can easily withstand “high-velocity” pistol ammunition — denting, scarring, and even holing heavy plate.

“First off, hopefully the club does not have anything but **500 Brinell** steel,” says Mike Gibson of Mike Gibson Manufacturing. “Anything less than that will be severely damaged. DO NOT shoot it with a rifle. Even 500 Brinell will still be marked by a centerfire rifle, and the closer you set the target, the worse it is. At 50 to 75 yards it will never be shootable with pistol again. The surface will not be flat anymore, and will start to generate frags.”

Don’t underestimate the danger of bullet fragments. A deep “crater” in the surface of the target can redirect high-velocity fragments uprange. These fragments are quite capable of damaging people and property. In fact, several shooters have been hospitalized by copper jacket “frags” coming off of badly dented steel at pistol distances.

Sporting .223 ammunition (particularly “varmint” loads) disintegrates well, and the projectile is small to begin with, so the number and size of the fragments are both small. Small frags slow down quickly, which greatly reduces the risk, but larger calibers are capable of throwing heavier chunks uprange. Shooters known to MGM report pulling bullet fragments out of the wall behind them after shooting 200+ grain slugs at a deeply-cratered block of mild steel 200 YARDS AWAY.

“Also, the larger the target, the more of a tendency it will have to dimple, or crater, or mark. Its mass resists movement. Smaller plates can respond, and will not be damaged as badly. That’s a lot of the logic behind the

flash target. It's much lighter, and swings with a relatively nominal impact," says Gibson.

The Velocity Factor

Even using the best steel targets, if you set the targets too close, you run the risk of holing the steel by brute force. The hardened surface will resist deformation, but the entire area impacted by the bullet will shear loose and push through the face of the target. The resulting hole looks like it was made with a cookie cutter.

With a .223, the magic velocity seems to be somewhere close to 3,000 feet per second. Gibson has seen this happen several times, Kyle Lamb (a well-known 3-gunner) has done this several times with standard factory ammunition, and we've seen this happen on heavy steel plate engaged with standard 55-grain FMJ's at 15 yards (the rules committee is currently considering establishing a minimum distance of 50 yards for steel rifle targets).

Thankfully, Gibson says that steel that has been cleanly "punched" is still useable at rifle distances.

"If you have a piece of steel with a clean hole through it, the bullet is not going to come back. It's not a crater. If a bullet hits the edge of the hole, it's like hitting the edge of the plate. Craters are another story entirely."

As Gibson said, setting your steel targets at 75 yards or more dramatically reduces the risk of damage both to you and to the steel itself, and that risk drops with added distance. However, we endorse Gibson's recommendation: "After you shoot a piece of steel with rifle, it's a rifle-only piece of steel."

Armor Piercing (AP) Ammunition

A great many companies manufacture NATO-spec ammunition loaded with the SS109 penetrator bullet. Since Congress has decreed that this bullet is NOT armor piercing, a great deal of this ammunition is available on the civilian market — and very little of it is marked appropriately. Loose SS109 bullets are also available to reloaders. Likewise, with the fall of the iron curtain, we have heard of similar .30 caliber ammunition and bullets finding their way into the United States.

The SS109 and its ilk contain a small steel spike, intended to defeat Kevlar helmets and the like on the battlefield. Keep a magnet on hand at your registration desk and use it to check every competitor's ammunition as it comes through the door. If the bullet sticks to the magnet, it can't be used.

Pistol Caliber Carbines

Shooters bringing 9mm or larger pistol caliber carbines to the line can do surprisingly well in 3-Gun competition, so long as the ranges are kept relatively short (100 yards or less). The guns are quick, recoil minute, and the shooter can often use the same ammunition as his pistol.

Most any .40 or .45 caliber carbine will easily make minor rifle (160 power factor), as will a great many 9mm's — particularly if the shooter sticks with the heavier bullet weights.

The pistol caliber carbines have built-in limitations for long range shooting, but work very well on most pistol ranges.



4 Manually Operated Rifle

Precision to Beyond 350 yards

Course Design Philosophy

Manually Operated Rifle is a discipline unto itself. Consider it the “fourth gun” in the USPSA 3-Gun world.

Where USPSA rifle emphasizes accuracy, manually operated rifle emphasizes precision accuracy out to ranges well beyond 350 yards.

Dedicated hunters, NRA High-Power competitors who use bolt guns, SWAT and military snipers, and long-range accuracy nuts of all kinds can enjoy this fast-moving variation on high-power rifle. Courses are short, but dynamic, with small amounts of movement, props, and the scoring features typical of USPSA shooting.

Course Set-up

Manually Operated Rifle opens a whole new slough of course design possibilities. Hunting scenarios offer options not normally seen, such as tree stands, blinds,



Custom Remington 700’s in .308 were the norm at the first USPSA manually operated rifle championships in 2002. However, super-custom guns like the 6.5-08 AWI at top drew much admiration. Targets can be very small, and ranges vary widely, putting a sharp point on the demand for pinpoint accuracy. (Photo by Patrick Sweeney.)

and encounters with bears. SWAT and military rifleman scenarios Play out on the 6 o’clock news daily, and if you can make a connection with your local high-power group, they will bring resources (such as turning targets and pits that can accommodate long-distance movers) to your mix.



Mad Dash? Doug Croughan snaps up his rifle and lunges for his first shooting position. Keeping one’s body composed has always been part of high-power rifle, but adding movement greatly changes the game. (Photo by Robin Taylor.)

As with rifle, planning for efficient range operation is an important element of stage design. In fact, if you haven’t already read the rifle section, please do so now. In manual rifle, consider setting up your course so that a shooter can place all of his shots on a single target — but do it from several positions.

For example, a seven-shot Virginia count course that starts in the back of a truck and ends in a tree stand makes a surprisingly challenging course: the shooter must engage, move, climb with an empty gun, reload, and engage again (now with a hot barrel and pounding heart). Because of the low point total, if the shooter drops a shot, he’s in big trouble.

It’s A DIFFERENT Game

The intense accuracy focus of manual rifle changes the dynamics of the sport. Issues like mirage, wind effect, objects touching the barrel, hot versus cold barrel zero, and a detailed knowledge of trajectory become major players. Since many shots are fired beyond 300 yards, shooters are work-

ing in the steeply-sloping half of the trajectory curve, where a small error in range estimation can make a big difference in point of impact. If they have one, shooters quickly break out their laser rangefinders and start calculating their holdover.

Reloading is less important here, but can be a serious problem — most manually operated guns in circulation today were not designed to be reloaded quickly.

Course design radically affects which rifles will be the most competitive. Bolt-driven AR's in .223 Remington like the one shown at right are quick, practically recoilless nail-drivers on a calm day, but past 400 on a windy day, the big bolt guns have the edge.

Steel Targets And Magnum Rifles

While AR-15's are hard on steel, there are outsized rifle calibers (the .338 Lapua, .338 Win Mag, the .50 BMG and its variants) that can render a long-distance target unusable in a very few rounds — even with soft-pointed ammunition.

Thankfully those rounds are rare, but as recoil compensator technology improves, they're becoming more common. Let your shooters know that any ammunition that damages the targets may not be used in the match. Your club may want to maintain a list of known "bad actors" like that above and publish that list in your match announcements. Here again, if you haven't read the "rifle" section of this supplement, please do so now.



Bolt-AR? Jake Kempton of Accuracy Speaks disabled the gas system on his AR-15 to field it as a manually operated rifle. With 80-grain bullets, it groups well within a minute of angle. If you have shooters that want to try manual rifle, try letting them shoot the course with an AR or M1A, hand-cycling the gun between shots. That puts a lot of unfired ammunition on the ground, but it lets a new manual rifleman try the game (for fun) without having to borrow a rifle. (Photo by Patrick Sweeney.)



RELOAD! Carl Carbon claws for a reload during a manual rifle match. There are a few tactical bolt guns that use detachable mags. This one (a Sean Carlock custom) can use modified M14 mags. While the faster reload is nice, a single missed shot will often erase any advantage gained. (Photo by Robin Taylor.)