

## ACCURACY IN PRACTICAL SHOOTING

Let's start with some terminology, so that we all understand the same things.

Look up the definition of accuracy in shooting in the Wikipedia and you will find two words not one, accuracy and precision. Below is my understanding of both in respect of practical shooting.

Accuracy as defined for shooting means hitting the target, anywhere on the target. The distance is not relevant; if you hit it at 1 000m or 10m makes no difference to accuracy. Example, Pepper Poppers only score when they are down; where the shot hits is not important, only that it is down. Thus we really cannot say that we are testing accuracy by shooting at long distances, we are promoting long distance shooting. Of course the shots spread more at longer distances, requiring a different set of skills and equipment.

Precision in shooting as defined is being able shoot all the shots into as small a grouping as possible. After being able to group the shots consistently, it is a matter of changing stance and adjusting sights to move the group into the A or 10 ring or highest scoring area. Example Benchrest and Olympic handgun and rifle shooting.

We in practical shooting usually accept both the words accuracy and precision to mean accuracy. We usually talk about how good the shooter is and in passing refer to how accurate [precision] the handgun or rifle is. We rarely speak about an accurate shooter, rather that they shoot accurately. We often talk about how accurate a certain firearm is, especially rifles.

Thus we can accept that by our principle of accuracy in IPSC we mean the shooter being able to hit the centre of the A zone consistently at any distance, using any stance, position, and challenge. This is relatively easy to do in handgun and rifle, although it is clear to any discerning practical shooter that most of our rifle and shotgun courses are designed by a handgun mind. It is not so simple for shotgun.

Let me at this stage confirm that accuracy is not promoted by profuse use of non-shoots. The appropriate use of non-shoots for tight shots is only one way to promote accuracy.

I refer below to what I believe to be best practice, visible at IPSC Level IV matches and IPSC in countries that have been active in such disciplines before us. The examples I use below are from the IPSC Global Village and Neil Beverley, IPSC Shotgun Rules Director. My specific reference is IPSC shotgun.

To lead in to accuracy in Shotgun: Have you ever heard of anybody talking of an accurate shotgun!?! Makes you think, doesn't it?

Shotgun is entirely different from handgun and rifle, being intended to launch a number of lead pellets [shot] of differing sizes in front of and at aerial targets, as well as moving targets on the ground. In shotgun there are endless permutations of shot size and charge weight, choke, barrel length, action, wad length and construction, crimp, propellant charge, length of cartridge case as well as cartridge case base height, primer etc, providing infinitely differing patterns and density of shot on the target. Two identical shotguns shooting cartridges from the same box will pattern differently at the same distance. Knowing the pattern and density of specific shot sizes for your specific shotgun at varying differences will help you to be an accurate IPSC shotgun shooter.

The challenge lies in the course designer setting up courses of fire to test the accurate

shooter. For handgun this is relatively easy, as we have been doing this since 1976 and we think we know how by now. Rifle courses require more thinking to accommodate the different characteristics of the rifle. We are still beginners in this, the Scandinavians have been shooting rifle matches up to level III for more years than we have been doing three gun. Shotgun requires even more attention. In this case the Europeans, especially the Brits, have been shooting shotgun Level III for at least 20 years, and Level IV for at least 10 years. If we want to compete with the Europeans in shotgun, we need to play the same game on the same playing fields.

Back to accuracy in shotgun. Smaller targets slow down the shooting but do not promote accuracy, just more time in aiming. Neither does placing them farther away. For shotgun it only means going to higher shot density such as No 6 or 5 shot, or change the choke on the shotgun, given that you know the pattern or spread of shot at that distance with your shotgun.

Look at the photos of the target arrays on this page, taken from Level II matches in the UK. The 3 plate array on the right should be easy to engage at 5m but move it to about 8 or 10m or even further, and you would have to know the spread of shot with your shotgun not to drop the non-shoot plates too. Perhaps change chokes for a tighter spread of shot or use larger shot for fewer pellets on the targets, etc. Or aim off, hoping that you will have enough weight of shot on the target but not enough on the non-shoots. You will notice that the red plates are double plates, so that you would have to really hit them with a lot of shot to drop them. Tempting to use smaller shot, aim for the centre and hope there will not be enough weight of shot on the non-shoots to drop them.



Now look at the other two photos. An array of 6 plates with one non-shoot, engaged through an aperture. Distance seems about 10m. Consider the distance and then think of the spread of shot and the implications of just three of your shots spilling pellets cumulatively onto the non-shoot. Requires a change in point of aim to prevent that, or larger shot, or a change in choke. If you decide not to go to heavier shot or change chokes, how far do you aim off at that distance with the size shot you are using to have enough weight of shot on the

targets to drop them but not to spill some of them onto the non-shoot?

The shooting challenge below is copied from the Global Village and is a condensed version of a shooting challenge set up by Neil Beverley to illustrate the use of tight non-shoots.

### **The Use of Tight Non-Shoots in IPSC Shotgun – A commentary**

The intention is to show how (in a shotgun match) a shooter can be challenged by the careful positioning of no-shoots. It shows how accuracy can be tested and how an overly hasty shot could punish the shooter. Of course in reality additional targets both near and far, with or without additional nearby no-shoots, can be added to present ever-changing challenges. These diagrams are merely to demonstrate a stage design concept.

Taking this very basic design with just 2 targets the concept is as follows: The competitor starts in the middle and is presented with the view in the top middle diagram. With the right choke and an accurately aimed shot (with the centre of the pattern aimed just off the target) these targets are most certainly shootable [*this is what the accurate shooter would do*]. But there is a very real risk of hitting a no-shoot for a poorly calculated aim point. The competitor may well choose to fit a full choke but if we now add in an array of close-up clays or small plates then we create a scenario where the shooter has to aim at each target rather than relying on any huge spread of pattern to take out the targets.

The lower of the four diagrams shows how far left and right the competitor has to travel to get a clear shot at the targets and in these positions the shot can slip behind the covering no-shoot.

The top left image shows the view over the competitor's shoulder from the left hand side of the range and conversely for the top right diagram.

However, I've been careful to position these so that the target on the other side becomes totally obscured and totally unavailable. Indeed every step helps one target and hinders the other. To use both the far left and the far right positions attracts a huge time cost that has to be weighed up against the risk of hitting the no-shoots.

This sort of shooting problem can be used on Short Courses or dropped in to sections of Medium and Long Courses. Really tight no-shoot problems can pose a unique challenge at the end of a more physical long course where competitors don't steady themselves sufficiently to make a clean shot.

Depending on the stage factor a competitor may decide to risk the penalty on the basis that the time saved justifies the risk of a penalty hit. With this in mind the Course Designer needs to set the challenge accordingly and to not make the extra time so great that nobody chooses that option. The other option is to declare the difficult targets as "double-value" targets.

By varying the closeness to the no-shoots, by manipulating the required distance to get to a clean shot, by switching between 5 or 10 points to score and by adding other targets to suit, a HUGE variety of problems can be created to constantly challenge the shooters and to create thinking stages. Stages that will test accuracy as well as speed.

There will be some who will be amazed by the number of misses that this type of set up will create, by competitors who aim off too far in an attempt to stay safe.

To summarise: the use of tight non-shoots is an invaluable tool in the Shotgun Course Designers toolbox and can significantly influence the competitors preferred plan or methodology. Accuracy is tested, speed is slowed or interrupted. Competitors must know the capabilities of their gun.

Does this clarify shotgun accuracy a bit? You can see the difference in approach from shooting single bullets from a handgun or rifle, to shot from a shotgun, and why you have to think differently for each discipline in IPSC.

