

## GUIDANCE ON SCORING

The purpose of this guidance is to help ensure a consistent and accurate standard of scoring and consistent application of rules related to scoring in NSRA and other competitions.

Following this guidance will help ensure consistent and fair scoring:

at large shooting meetings, where many scorers are employed;

in large postal leagues, with many divisions, particularly where individual awards and/or rankings are decided concurrently with the team competitions; and

in self-scoring, postal competitions.

### Definitions

A number of words used in this guidance have specific meanings, some being as defined in NSRA Rules.

Each aiming mark is termed a 'target'. A 'card' may comprise more than one target. The term 'card' shall be taken to include the printer strip and/or start card for competitions shot on electronic targets. (NSRA Rule 1.10.6)

The paper on which targets are printed is normally referred to as 'board', being thicker than normal paper.

In rifle competitions 'short range' targets are those used at 15, 20 and 25 yards and 25 metres.

### The Scorer's Job

The scorer's first task is to score all cards in a fair, consistent and accurate manner, in accordance with the relevant rules.

The scorer's second task is accurately to record and present all scores and results to the competitors as soon as possible.

If there is any doubt about any issue relating to any score, then the benefit of the doubt must be given to the shooter.

Fast, accurate scoring is the ideal. The best scorers are very fast and very accurate - but accuracy must never be sacrificed for speed.

### Scoring Essentials

#### A place to work

Scoring is a demanding job that requires sustained concentration.

A small number of competitions, such as ISSF 25m Pistol and 25m Standard Pistol, are normally scored at the butts. Otherwise scorers must have a comfortable, quiet and well-lit place to work effectively. Ideally, this will be an office somewhere away from the range.

A scorer will need a chair and a table, with enough space to work, lay out his equipment and to keep scored and unscored cards.

Space is also needed for receiving and sorting cards from the range, and for filing shot cards.

#### Equipment

Each scorer must have, or have ready access to:

The relevant Rules and Conditions for the competition(s) being scored.

The relevant gauges or scoring machines.

Score sheets, score cards, etc.

Pens, pencils, erasers, etc.

Scorers may also need:

A table lamp or other task lighting.

A magnifying glass.

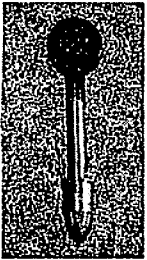
## Rules

A scorer must know and understand the relevant rules and must have access to the latest edition of the relevant rules at all times when scoring any competition.

A scorer must also understand the various rules relating to the insertion of plug gauges into shot-holes, must be able to insert a gauge into a shot-hole in a proper manner and must understand the need to support shot targets adequately whilst they are being gauged.

## Use of Plug Gauges

Plug gauges are used to determine the value of doubtful shots.

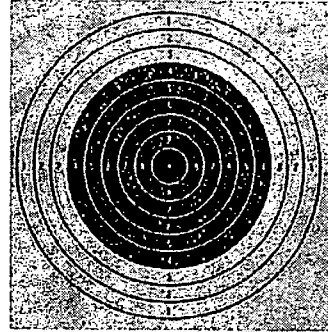


A simple plug gauge has a spindle, to centre the gauge in the shot-hole, and a somewhat larger, concentric flange, which rests on the surface of the target and is used as the reference to determine the value of the shot.

## Targets

Targets comprise a series of scoring zones, normally wide concentric circles, each having a particular value. The scoring zones are separated by thinner concentric circles, called scoring rings, which have a width of about 0.1 mm to 1.0 mm, depending of the type of target.

Scoring rings situated within the aiming mark are white, and outside the aiming mark are black. In the case of some targets (e.g. 10m air rifle (below), but not 50m rifle) the outside edge of the aiming mark may also serve as a scoring ring.



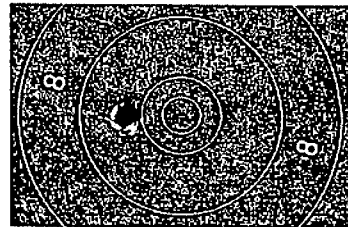
With very limited exceptions, the principal ones being the British 50 yard slow fire pistol target (PL6) and the now largely unused 20 yard PL3 target, the distance between consecutive scoring rings is the same throughout the target.

## Inward and Outward Gauging

Targets are scored according to one of two different systems - inward gauging and outward gauging.

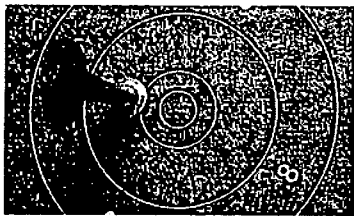
A scorer needs to know and understand the principles of both inward and outward gauging with plug gauges and with oversize plug gauges. This is explained in Rule 5.1 and Appendix B to NSRA Rules and in the relevant sections of ISSF Rules.

## Inward Gauging



For inward gauging targets the principle is that the value of a shot is determined by the position of the edge of the shot-hole nearest the centre of the target.

When the shot-hole touches the outside of

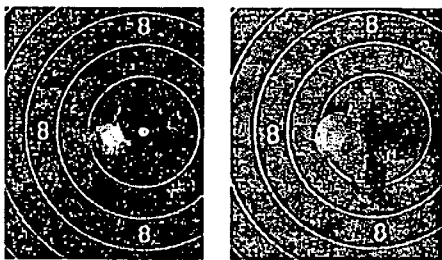


the scoring ring, the higher value is awarded.

This system applies to all ISSF and NSRA targets for rifle, pistol and airgun, with the exception of NSRA short range rifle targets of the British Match 1989 Series (and their predecessors in the 1966 and 1985 Series).

### Outward Gauging

For outward gauging targets (NSRA short range rifle targets) the principle is that the value of a shot is determined by the



position of the edge of the shot-hole furthest from the centre of the target. When the shot-hole touches the outside of the scoring ring, the lower value is awarded.

### Shot Value

In both inward and outward gauging, the point at which the shot value changes is the outside edge of the scoring ring.

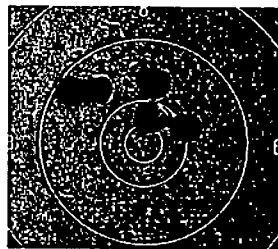


## Scoring Muzzle Loading Competitions

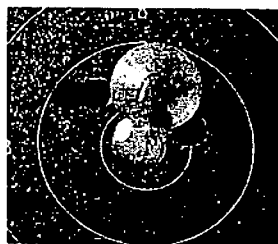
Most competitions for muzzle loading score by reference to the centre of the shot-hole. In these competitions, the centre of the shot-hole (i.e. the greater part of the shot-hole) must be within the printed scoring ring to score the higher value.

### Gauging with Oversize Gauges

In some circumstances it may be difficult or even impossible to gauge accurately to the



ring adjacent to the shot-hole. This may be because the scoring ring has been struck or otherwise damaged by the bullet, other adjacent shot-holes or splashback. In these cases, it is possible to use a gauge with an



over-sized flange to determine the shot value by reference to another ring on the target.

There is very little difference between the normal size of the hole produced by a flat-headed (wadcutter) pellet favoured by most ISSF airgun shooters (mandatory in competitions under NSRA rules) and the

nominal size of the pellet. It is therefore normal for all ISSF and national airgun targets to be scored using oversize gauges.

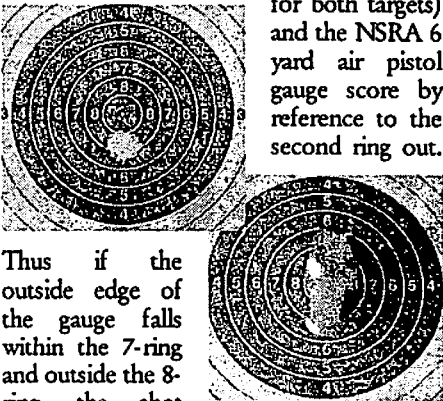
Oversize gauges always score to a ring of lower value than the ring adjacent to the shot-hole in question.

The ISSF 10m air pistol gauge, the ISSF 50m rifle gauge (below) and the NSRA 50



and 100 yard rifle gauges all score by reference to the next ring out, i.e. if the outside edge of the gauge falls within the outside edge of the 9-ring, the shot value is 10 points.

The NSRA 6 yard air rifle and ISSF 10 metre air rifle gauge (the same gauge is used

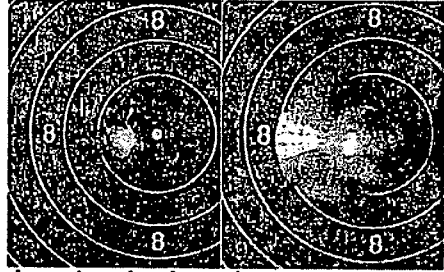


for both targets) and the NSRA 6 yard air pistol gauge score by reference to the second ring out.

Thus if the outside edge of the gauge falls within the 7-ring and outside the 8-ring, the shot value is 9 points.

NSRA short range, outward gauging rifle targets should always be scored using the oversize gauge for that distance. There is a different oversize gauge for each of the four distances. They all score to the next

ring outwards. Thus if the outside edge of the gauge falls within the 7-ring and outside



the 8-ring, the shot value is 9 points. The tolerance on the standard 5.6mm plug gauge is the wrong way for outward gauging targets and its use disadvantages the shooter.

There are also oversize gauges, which can be used instead of the standard 5.6mm plug gauge, for 50 yard, 50 metre and 100 yard rifle targets.

### Shots in the Outer Scoring Rings

Oversize gauges can only be used where the required scoring ring, one or two rings further from the centre as appropriate, is printed and is of the correct dimension. For most targets the lowest value scoring shot is 1 point, but on some targets the lowest value may be higher, such as 4 points on the 50 yard rifle and 6 yard air rifle targets and 2 points on the 100 yard rifle target.

This means that on all targets a shot of the lowest scoring value cannot be assessed with the relevant oversize gauge.

In the cases of the 10 metre and 6 yard air rifle targets, shots in the outermost two rings (1 and 2 points at 10 metres: 4 and 5 points at 6 yards) similarly cannot be assessed with the relevant oversize gauge.

The 6 yard air pistol target is a special case as a zero-ring is printed. It can therefore have a shot counting 2 points assessed with

an oversize gauge, but not a shot scoring 1 point.

### Short Range Rifle Targets

On short range prone rifle targets, the lowest value scoring ring which follows the normal rule that scoring rings are equidistant is the boundary of the 6 point and 5 point scoring zones. Accordingly, the lowest value that can be determined by an oversize gauge is a "gauged-in" 7 points.

For determining shots with values of 5 and 4 points, the scoring ring is the edge of the aiming mark at each distance. Aiming marks are proportional as seen by the shooter (i.e. directly proportional to the shooting distance). Scoring rings are proportional in measuring the deviation of the centre of the bullet from the centre of the target by reference to the position of the edge of the shot-hole. Therefore not only can shots scoring 4 or 5 points not be scored with oversize gauges, the shots do not have the same deviation from the centre of the target and are therefore not exactly proportional at the four distances.

### Gauging Rules

Inserting a shot-hole gauge alters the shot-hole. Re-inserting the gauge a second or subsequent time (re-gauging) may therefore give a different result.

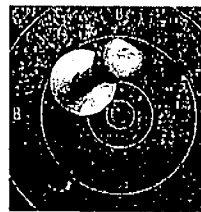
For competitions shot under ISSF Rules, and for finals at meetings shot under NSRA Rules, a gauge may only be inserted once in each shot-hole. Three scorers must be present and once the gauge has been inserted, the value of the shot must be determined before the gauge is removed.

Each scorer assesses the value of the shot and, on a signal from the senior scorer, shows whether it is "in" (normally by a thumb-up gesture) or "out" (thumb down). The majority opinion determines the value

of the shot. The target is then marked, to indicate that the shot-hole has been gauged and to show the value awarded. Each of the scorers then adds his initials against the decision, which is final.

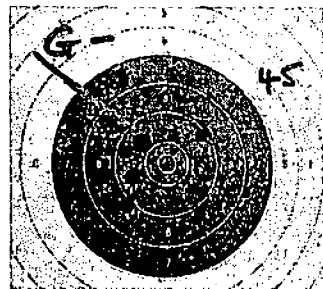
For competitions shot under NSRA Rules, scorers are often operating alone. In these circumstances the scorer decides when to use the gauge and determines the value of the shot. Re-gauging of shot-holes is permitted in the event of a challenge from the shooter or a team captain.

In competitions organised by some clubs or associations and shot under old rules, re-gauging with graduated gauges may be required to separate tied scores (see the section on Graduated Gauges).



To minimise wear & tear on shot-holes, a scorer working alone should insert the gauge only once and determine the value of the shot before removing the gauge.

NSRA Rule 5.1.5 requires that: "*The use of a gauge must be marked on the target by the scorer.*". This will normally be done by indicating which shot-hole has been gauged (if there is more than one shot on the target) together



with a letter "G" and either "+" or "-" to indicate whether the shot gauged as the higher or lower value.

## Using Plug Gauges

Remove the card from any backing frame, holder, etc. If the card is wet, lay it aside to dry, if at all possible. Check the back of the card for debris, which might interfere with accurate gauging, and carefully remove if necessary.

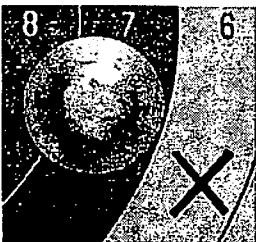
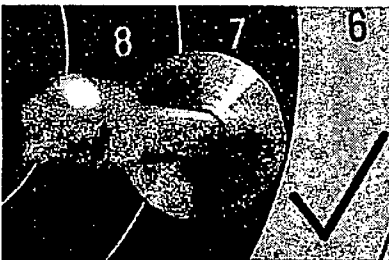
Lay or hold the card flat and horizontal, supporting it near the shot-hole, if necessary.

Many scorers use a frame with a small cut-out or cut-outs, to support targets which are being gauged.

Select the correct gauge.

Lower the gauge gently into the shot-hole, allowing the spindle to self-centre the gauge under its own weight. Very gently press the gauge into the shot-hole until the flange lies flat against the paper.

Determine the value of the shot. This must



be done by looking at the position of the gauge flange at an angle, not from directly above, as the latter can lead

to distortion and inaccurate scoring.

## Gauges

Every scorer must have access to all necessary gauges or machines for scoring the competition and must be able to select the appropriate gauge for each scoring task.

The technical specification of gauges is in Appendix B of NSRA Rules and Chapter 6 of ISSF Rules.

For short range rifle competitions, shot on proportional British Match Targets, it is essential to use the correct oversize plug gauges for the particular distance (15, 20 or 25 yards or 25 metres). The 5.6mm gauge is designed for use on inward scoring targets and with the exception of shots striking the outermost rings of short range rifle targets, where an oversize gauge cannot be used, they should not be used.

For all other ISSF and NSRA inward scoring smallbore rifle targets, the standard 5.6mm plug gauge is normally used (although there may be oversize gauges available as alternatives.)

For all lightweight sport rifle events (where either .22LR or air rifles not exceeding .22" may be used) the standard 5.6mm gauge is used irrespective of the calibre of the rifle.

For all smallbore pistol events and their 20 yard or 25 metre air pistol equivalents, the standard 5.6mm gauge is used irrespective of the calibre of the pistol.

For ISSF Center Fire Pistol, ISSF approved gauges with a 9.65mm flange and with a variable spindle diameter, according to calibre, are used.

For NRA pistol and gallery rifle events, NRA gauges with a flange size according to calibre are used.

For ISSF and NSRA 10m airgun competitions the correct oversize gauge should be used for normal scoring.