

# **Preparatory Schools Rifle Association**



## **PREPARATORY SCHOOLS RIFLE ASSOCIATION RIFLE TRAINING MANUAL: 10 METRE AIR RIFLE AND SMALLBORE RIFLE**

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*A '10' with every shot.*



## **FORWARD:**

*Nigel Curtis was the Master IC Shooting at Terra Nova School in Cheshire for 28 years.*

*In that time his teams won over 100 national PSRA and National U14 titles.*

*This manual outlines in some detail the coaching structure and philosophy that Nigel developed in his time at Terra Nova and is recommended reading by the PSRA.*

## **An introduction about Terra Nova school shooting by the author.**

At the time of writing, rifle shooting has been a part of sports activity at Terra Nova School for over 100 years. For many years it has been the most successful sport at Terra Nova at National level.

In that time the school has been competitive in smallbore rifle (.22 calibre), and 10 metre Olympic air rifle (.177 calibre), for almost 100 years and seven years respectively.

The **Preparatory Schools Rifle Association** hosts shooting competitions each term and they all carry national titles for the winning school teams.

### **Terra Nova coaching history.**

**Hedley Timothy Moore** started the long run of success for Terra Nova teams through the 60's, 70's and 80's until retirement, and was followed for a short time by **Tim Robinson** before I took over in Summer Term 1990.

Hedley's teams were regular winners of the St Patricks Shield and St Georges Shield for smallbore rifle and the Lord Roberts Cup at 2<sup>nd</sup> VIII level.

Tim Robinson had some success in his short tenure.

### **My time at Terra Nova.**

When I took over in summer 1990, a new school: Ardvreck, were setting new records and taking the Prep School shooting scene by storm under their shooting coach **Tim Verlander** (what is it about coaches called Tim!), and at that time, I had just a few pupils on the shooting timetable.

It was at this point I realised I had a difficult task ahead if **Terra Nova** was once again going to become a leading light in Prep Schools shooting.

### **The Coaching conundrum.**

Where to start? At that time, I was shooting for Great Britain but in a very different discipline, however the principles of training and technique proved transferable between disciplines with the application of some lateral thinking.

Over the 28 years in my time as shooting coach, Terra Nova teams took over 100 national and other shooting titles from Prep School and National U14 League competitions and also the prestigious Prep Schools Centenary title in 2006 on the Olympic 50 metre range at Bisley.

### **Competition success.**

In all my teams have won a grand total of some 140 national trophies including runners-up spots in all competitions.

*A '10' with every shot.*

This document gives my own approach to coaching 10 to 13-year-old pupils in the discipline of prone rifle shooting and gives an insight into how they can be taught the: respect, understanding of safety, the discipline and the mental skills that will make them competent rifle shots.

Prone rifle shooting with either smallbore rifle or 10 metre air rifle carry common skill sets and the training approach offered in this document is equally applicable to both.

These skills pupils will retain for life, and they will benefit from them when they are applied to the many other pursuits that life ahead will provide.

Nigel Curtis.

Master IC Shooting

Terra Nova School

1990 - 2018



**'A ten with every shot'**

*A '10' with every shot.*

## **1. Introduction.**

When a firer shoots a target what are they trying to achieve? A personal best? A score of over 90?

Well perhaps, but the only real requirement to become a successful rifle shot is to learn and understand what is required to shoot one perfect shot for a score of 10 points. Then **repeat** that small feat.

***'Try to shoot a 'ten' with every shot'.***

Once new pupils have completed basic training and are working their way up to a competitive standard they should be coached in an attitude that sees them trying to shoot a '10' with every shot.

This requires a quality training programme and the encouragement of pupils.

## **The 'Deal'.**

It also requires the best effort of the coach and that for me is: **'the deal'**.

I always make it clear to pupils that I require their best effort and that I will always give them my best effort.

## **Achieving competitive scores.**

This training manual provides my straightforward approach to shooting a '10' with every shot and also the technical procedure to complete a full scorecard of accurate shots with a view to achieving competitive scores.



## **2. Safety, the disciplines and understanding how the rifle works.**

### **Safety has paramount importance on the rifle range.**

The pupils must have impressed upon them the understanding of how to be safe when handling a rifle and how they must conduct themselves.

Good and sensible behaviour is required and to be encouraged, yet this should not take away the enjoyment and fun that training can bring to a pupil's time on the shooting range.

Pupils need to know what is expected of them and I developed a very simple set of safety rules which cover everything and give the coach full control of the range and the pupils in their care.

The **Preparatory Schools Rifle Association** provide training courses for school coaches and they can be arranged on request.

The Terra Nova Range Safety Rules are appended to this document.

### **2.1 10-metre target air rifle.**

At the time of writing there are no firearm licence requirements for the use of an air rifle under current air rifle laws in England.

10 metre target air rifles have a very limited muzzle energy of under 6ft/lbs – the Terra Nova rifles are comfortably below this level at 4.5ft/lbs. This gives a muzzle velocity of approximately 500 feet per second.

Whilst this is a very low level of power and to some extent limits the damage potential from a pellet impact, this does not in any way reduce the need for appropriate care and management, of the safe use of an air rifle, at all times.

The safety rules dictate that pupils can not make any use of rifle, ammunition or target changing without permission from the **rifle coach**.

With the right discipline, pupils will have full understanding and may ask for permission to commence a section of handling or training, **but the coach will have the controlling discretion.**

*A '10' with every shot.*



**Above:** Two Air Arms 10m pneumatic air rifles. Top: MPR 10 metre and bottom the S200 10 metre – both ideal for juniors. The S200 is easily shortened for the smallest pupils, the MPR is adjustable. Both have sub 6ft/lbs muzzle energy.

*Note: Anschutz, Walther and Feinwerkbau all produce high quality 10m target air rifles however they are expensive unless you manage to buy second hand.*

## **2.2 Smallbore target rifle.**

Smallbore rifles fire live ammunition. The bullets have greater weight than air rifle pellets and therefore have significant momentum. In addition, the chemical propellant in the cartridge case gives the live ammunition a significant velocity of almost 1,000 feet per second. This multiplies significantly the energy produced in the bullet when compared to firing an air rifle pellet.

A bullet strike from a smallbore rifle – especially to a vital area – could cause fatal injury.

The smallbore rifle also has significant effective range and Firearms Law requires a School Rifle Club to have a Firearms Certificate held in the name of the rifle coach. The Constabulary Firearms Officers conduct regular checks on security and involved staff.

This process is thorough, as it should be.



*A '10' with every shot.*

## **Home Office Approval.**

Smallbore rifle shooting can only be conducted in a Home Office approved firearms rifle range with all the attendant: design, safety and security features.



**An Anschutz model 64 action smallbore rifle. Ideal for juniors.**

## **2.3 How the rifle works.**

The pupils should understand how the rifle works.

There is nothing magical or Hollywood about target rifle shooting.

The rifle is simply a tool with which holes can be punched in a paper target to score points.

Understanding how the rifle works will aid: understanding, technique, allow the rifle and firer to become 'one', and ultimately produce improving scores.

Prone shooting with air rifle and smallbore rifles share many common points and features, the main difference is in the production of the energy to generate the shot at the target.

## **2.4 Air rifles.**

Feature two types: spring powered and pre-charged pneumatic actions.

**Spring powered** air rifles use a spring powered piston to compress air within a chamber connected to the rifle barrel by a narrow port.

*A '10' with every shot.*

The pressure created overcomes the friction of the pellet loaded in the barrel to propel the pellet up the barrel and towards the target.

On cocking, the piston is retained by the trigger which when actuated releases the piston which is propelled by the spring to compress the air and produce the effect of propelling the pellet up the barrel.

Most common are break-barrel spring air rifles which most people will have at least seen, some are fixed barrel with an underlever to replace the break-barrel as a cocking arm for the piston.

Both types of air rifle have complicated recoil signatures (the movement in the rifle generated by firing the shot), and require a high level of positional discipline and technique to shoot consistently well.

Some spring powered target air rifles have mechanisms which 'damp-out' the recoil signature and are therefore easier to shoot accurately.

**Pneumatic** target air rifles are the best choice for 10 metre target shooting.

We have always used this type of air rifle at Terra Nova.

These air rifles are recoilless and therefore do not recoil on the shot. There is no recoil signature.

Despite this, top quality results will not be achieved, without proper training and technique, and the good discipline of the firer.

Pneumatic air rifles come in two forms: manual lever pump (integrated into the rifle action), and pre-charged pneumatic which has a secondary air cylinder below the rifle barrel (charged with compressed air from a compressed air cylinder or 'divers bottle'). This provides a significant number of shots before the next charge is required.

### **Target calibre.**

In all cases the target calibre for air rifles is 0.177" or 4.5mm. Pellets have a flat head so that they cut a neat round hole in the target which aids accurate scoring. These pellets are often known as: 'wadcutters'.

*A '10' with every shot.*

There are many different grades of pellet and a target quality pellet should always be used.



**A typical 'wadcutter' target air rifle pellet.**

## **2.5 Smallbore rifles.**

All smallbore rifles feature the same basic arrangement for the action as a pneumatic air rifle.

Breach block and bolt serve a floating barrel set in a target styled stock designed for prone position shooting.

The power to propel the bullet up the barrel is generated from the burning of a chemical propellant in the brass cartridge within which the bullet is captive. The high pressure created in the cartridge body expands to release the bullet from the cartridge and propel it up the barrel.

Smallbore rifles are 0.22" calibre or 5.5mm, and targets are shot at: 20 and 25 yards, 50 metres and 100 yards. Most Schools shoot regularly at the shorter distances.



**Typical 0.22" calibre smallbore rifle cartridges.**

*A '10' with every shot.*

### **General features of both types of rifle.**

In prone target disciplines, both air rifles and smallbore rifles feature the same type of aperture sights and can be fitted with hand stops and bipod feet to the 'gadget rails' fitted under the fore end of the stock.

Many rifles feature adjustable cheek pieces and recoil pads which help in setting up a rifle so that all pupils of similar stature will be aided by a rifle which 'fits' their shooting position.

At Terra Nova our friendly DT teacher has helped out with stock adjustment and the creation of raised cheek pieces for improved head position – especially on our S200 air rifles. The S200 also benefits from the addition of a gadget rail under the fore end for the placement of a hand stop and sling swivel.

Here is a picture of a TN S200 with: replacement recoil pad, raised cheek piece, gadget rail and hand stop. It is amazing what a difference these additions made to the accurate use of these rifles for the smaller pupils.



**An Air Arms S200 10 metre air rifle modified with: shortened stock, adjustable butt plate, raised cheek piece and gadget rail which holds the handstop with sling loop for the sling hook. (A friendly DT teacher is invaluable for this!)**

*A '10' with every shot.*



**The gadget rail inlet into the fore end. One full length gadget rail (bought from NSRA shop), will make two such rails and therefore fit two rifles.**

***Good rifle fit is crucial to accurate shooting.***

### **Graded rifle sizes.**

Pupils come in all sizes and shapes. They also grow – sometimes at an alarming rate!

At Terra Nova we are lucky enough to have 10 rifles, 6 MPR's and 4 S200 models from Air Arms (English Company).

Our rifles are graded from the shortest to the longest in roughly one-centimetre increments so that each subsequent larger rifle has an increase in 'length of pull' and 'distance to hand stop' of 5mm each measured either side of the trigger blade.

This means that as pupils grow they can move up a rifle with only minor changes to deal with.

The best way to achieve this is to take a medium sized pupil (!) and fit a rifle perfectly to that person then grade the other rifle sizes from this bench mark.

### **3. Other range equipment for the firer.**

For the prone discipline it is important to have shooting jackets and slings if the firer is to have the right equipment within which to shoot accurately.

#### **Shooting Jacket.**

The shooting jacket properly supports the firer when in the prone position allowing them to learn to relax properly.

The shape of the jacket is made to suit the prone position and therefore feels a bit restrictive when standing up.

To check fit ask the firer to hold two fists in front of their face with the thumbs closest and gently push their elbows together. Check the fit across the upper back and if it is snug but not tight that is a good fit indicator.

The jacket should not be loose.

#### **The rifle sling (Right handed firer).**

Should be permanently attached to the left sleeve of the jacket and retained by the shoulder strap there.

The sling connects the left upper arm of the firer, to the rifle, and can be adjusted to support both the firer's left arm and rifle, again so that the correct relaxation and balanced position can be achieved.

The sling connects to the underside of the rifle via a hook on the sling and a metal loop on the handstop or fore end of the rifle. There are also other types of sling attachment – they should be the same on all rifles.

The sling passes under the left wrist of the firer on the way to the metal loop.

**The coach** should 'strap' the firer 'in' to the rifle and sling when the firer has assumed the correct prone position. The coach should make sure the firer's left wrist is straight when strapping in. This means the 'thumb muscle' at the bottom left of the firer's palm should be just under the rifle.



*A '10' with every shot.*

This will transfer the weight of the rifle through the forearm bones direct to the floor. (The rifle should **not** be lifted by the left arm muscles).



'Strapping in'.

### **Hearing protection.**

The discharge of a smallbore rifle or air rifle is a high frequency sound so hearing protection is very important.

Hearing protection should be worn by all when firing is under way.

### **Sight picture.**

To help with a firer's 'sight picture' an 'eye-blinder' should be used to cover the eye not looking through the sights. I have always used tennis head bands and a piece of card cut from a used practice target.

It is important that only the eye looking through the sights can see the target as a view down the side of the rifle to the target with the left eye gives the brain two target images – one through the sites and one not.

This has the effect of making fall of shot go left and right on the target itself and the firer may complain of 'double-vision'.

*A '10' with every shot.*

### **Shooting Glove.**

A shooting glove on the left hand completes equipment requirements. The left hand is positioned behind the rifle handstop and is supported by the sling around the wrist and back of the hand.

The glove aids reasonable comfort for the hand and wrist in young firers and protects those young joints.

### **Shooting Mats.**

Shooting mats will aid the comfort of the firer in the prone position and gym mats are effective, especially if placed upside down so that the textured underside is uppermost and prevents elbows slipping when in a firing position.

### **Ammunition Block.**

An ammunition block which mimics the layout of the 'blacks' on the target is invaluable as it guides a firer around the target and helps prevent misplaced shots which cost penalty points.

I recommend constructed foam layers for the slightly fragile air rifle pellets but have found wooden blocks with holes drilled in to be more than adequate for smallbore rifle cartridges.

I also number the ammunition blocks so that the order of fire around the target blacks on the score card is clear – especially to new firers.





*A '10' with every shot.*

**These pictures show a few ideas for equipment set up:**

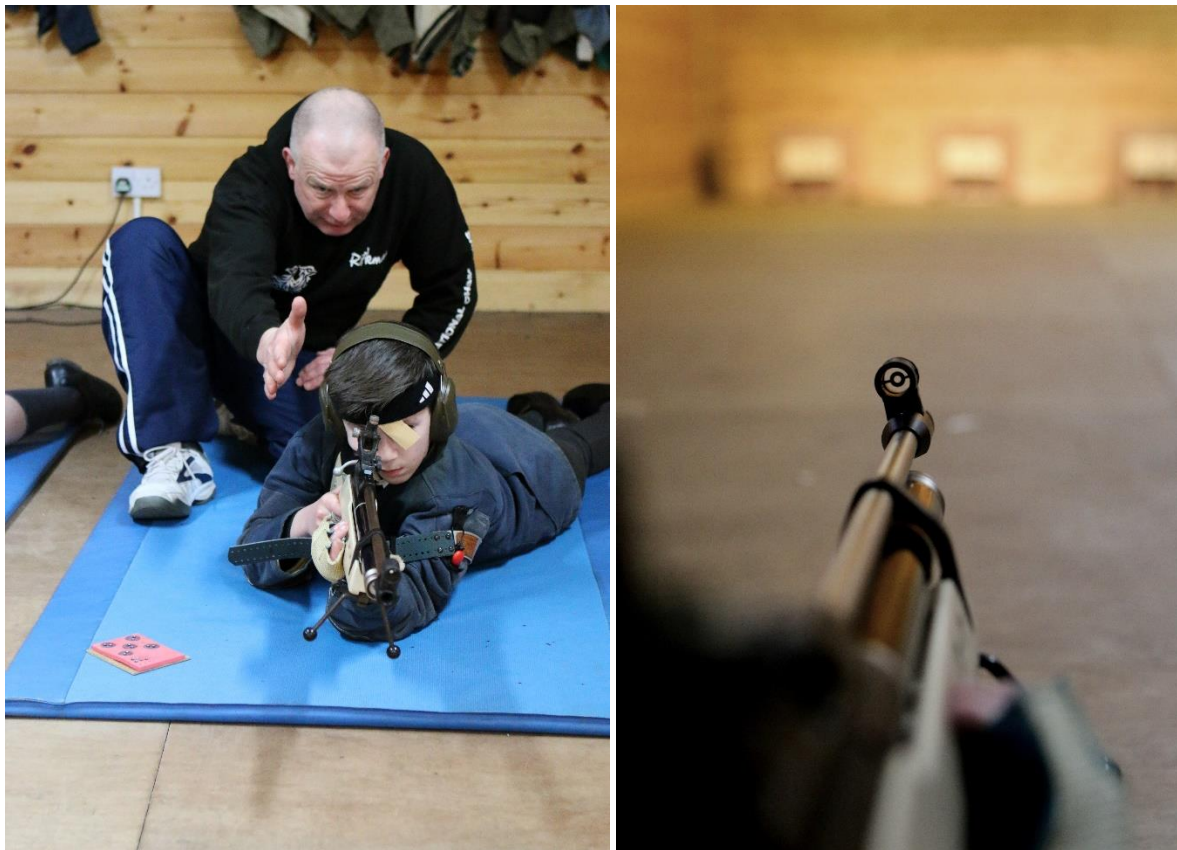


Note the correct: 'thumb-up' position, eye relief to sights, sling position.



Note the: eye-blinder, rifle 'cant' and sling retention to jacket.

A '10' with every shot.



**As a coach** you will need to take the firers view so that you can guide the firer into the correct detail of the position.

Note the hand of **the coach** mimics the necessary cant of the rifle, the thumb position indicating that the site should be canted in front of the eye so that the head can maintain a relatively upright position and be in balance.

***N.B. At Terra Nova school I have always taught pupils to shoot right handed and only have right handed equipment. The logistics and cost of having a full range of left handed equipment for a small number of 'lefties' is not practical.***

### **3.1 A quick note on coaching equipment.**

Hearing protection (preferably ear defenders with speakers and high frequency cut out on the shot), spotting scope, note pad and pen, desk and a comfy chair!

Notice boards for: timetables, pictures, target display, progress charts and record sheets are a must.

## **Blu-Tac!**

If you have a firer who needs to wear their glasses, they will not see through the glasses lens when in the prone position. A solution is blu-tac!

Place a piece of blu-tac on the bridge of the firer's nose and this will lift their glasses high enough for them to see the sight picture through the lens. This is a similar effect to the specialised 'upside-down' spectacles used by some snooker players.

Simple but effective!

Note – you may have a pupil who sees a better sight picture without their glasses – I have two! It is worth trying both options.

## **3.2 Other range features.**

Smallbore rifle and live firing ranges have specific requirements that come with Home Office specification for safe backstops and bullet catchment plus other requirements for security, air extraction and lead collection.

Official advice should be taken.

For air rifle the following arrangements have been safe and successful at Terra Nova school:

The Terra Nova school air rifle range is a large shed divided into the range itself and an anti-room for arriving details.

Target holders, spotlighting (for quality sight image), live firing indicator (could be a light outside the range door – I have a notice indicating that a closed range door denotes live firing).

You will need hooks to hang jackets and ear defenders, gloves etc. You will also need hooks to hang blazers!

I always lock school air rifles in secure cabinets and have separate secure cabinets for air rifle pellets.



*A '10' with every shot.*

Storage is very useful, shelves are a minimum requirement for ready access to targets etc.



The down range view.

#### **4. Getting pupils started.**

##### **4.1 A system of trials.**

I use a system of trials to select new pupils for places on the shooting timetable.

Pupils are invited to sign up for the first trial through as many mediums as school life allows – its surprising how often pupils and parents will miss such an invite!

The first trial is one where I assess pupil: attention, behaviour and interest.

In this trial they learn about equipment, are measured for rifle and jacket fit and are taught the basics of the prone position and trigger technique.

*A '10' with every shot.*

They do not fire live in this trial but do handle rifles and judge each other on their first attempts at position building and trigger technique. Trigger technique is learned through a 'dry-firing' process where the rifle is cocked to allow trigger practice but the rifle is not loaded.

On a pneumatic air rifle this simply allows compressed air to be released up an empty barrel. For a smallbore rifle dry firing caps should be used to protect the firing pin in the bolt.

**NB: Spring powered air rifles should not be dry fired. You will need to supervise a loaded rifle, perhaps firing off a sandbag at a safe backstop.**

This group judgement of trigger technique is the first pebble in the pond of competitive shooting and competitive attitude should become a habit throughout the pupils time on the shooting range.

Once this trial is complete, selection can begin and promising candidates are brought back to the range for coaching and live firing for the first time.

**The second trial is for live firing.**

There should be no scoring at this time.

**All a coach** is looking for is the ability of the pupil to begin to understand the shooting position and the basic shooting technique.

Pupils are coached through a series of 5 shots at a central 'black' on a target and taught a basic level of technique to produce a reasonably consistent shot.

Patience is required from the coach as the multiple requirements of:

- maintaining the taught shooting position
- listening and following the shooting technique procedure from the coach
- handling a rifle of significant weight
- **AND** trying to relax at the same time...

...mean a pupil has a great deal to cope with!

**Gentle and constant coaching reminders and prompts will slowly build the habit of consistent technique within a pupil's mind.**

*A '10' with every shot.*

They will learn to use their mind to:

- 'feel' the shooting position
- understand where their feet are (and all other elements of the body position)
- whether their position is relaxed
- whether their shoulder/arm/hand relationship is the correct shape
- whether the rifle is in the same and correct position in their shoulder
- how to achieve the correct rifle/right-shoulder position
- whether their left wrist is straight
- AND then remember the procedure of technique and trigger control

All of which means there is a huge amount for them to cope with!



A 'detail' of three firers 'getting their gear on'.

*A '10' with every shot.*

#### **4.2 Patience and the coach.**

Patience is crucial for **the coach** and I can attest to the fact that at times it can be a significant challenge – but not as great a challenge as that for the pupil to deal with the huge amount of information being presented to them in that first live firing trial.

Taught well, a pupil should have a reasonable chance of producing the fifth and last shot of this first trial with only a minimum of prompting from **the coach**.

***Challenge them to do this.***

Ask the question:

***'Do you think you can reload and fire the fifth shot on your own?'***

The answer is usually 'yes' but there will be some uncertainty and incorrect procedure.

**'Prompt and praise'** both have a part to play here.

Quietly and patiently give reminders and keep your voice calm (not as easy as you think!). Guide them into clear thinking so that they learn to remember where and how the next part of the procedure takes place.

***Remember: Learning and practising good technique is habit forming.***

#### **4.3 Managing expectation at the live firing trial.**

At this first live firing trial **a coach** can probably expect a pupil to group 3 or 4 of their first 5 shots.

Always take your information from the number and quality of shots which are 'grouped' together. Ignore a shot displaced from a group in this first shoot.

It may be that the group is not tight but all 5 shots are in a circular cluster. This is a very good result and shows some consistency and simply requires improving technique to tighten the group.

*A '10' with every shot.*

5 shots in a 'round' group the size of a 1p piece or less is a very good result.

**Note: - it doesn't matter where the group is on the target at this stage – it's all about the consistency of the firer's technique and the quality of the group of shots on the target.**

At this time the sights are not adjusted for the individual and as long as the shots group in the same place, even if it is off the black this doesn't matter.

***The quality of the group is where your information lies as a coach.***

### **Coach and Pupil Understanding.**

**It is vitally important** that the pupil understands at the outset that the placement of the group at this trial is not important.

They need to be taught to use a correct sight picture on the target 'black' and not worry if their shots are not central – only the grouping is important.

**Both coach and pupil** need to be clear on why the placement of grouping is not important at this stage.

The grouping achieved by the pupil is a clear indication of how they have understood and executed the position and shot technique taught in this second trial and helps the coach understand the pupil's potential and where they may need more instruction.

### **4.4 Basic technique at the live firing trial - the prone shooting position.**

The shooting position is the base from which everything else is achieved.

It is like the foundation to a house – without the correct foundation everything else will be less than effective and not consistent.

**I cannot put enough emphasis on how important the shooting position is.**



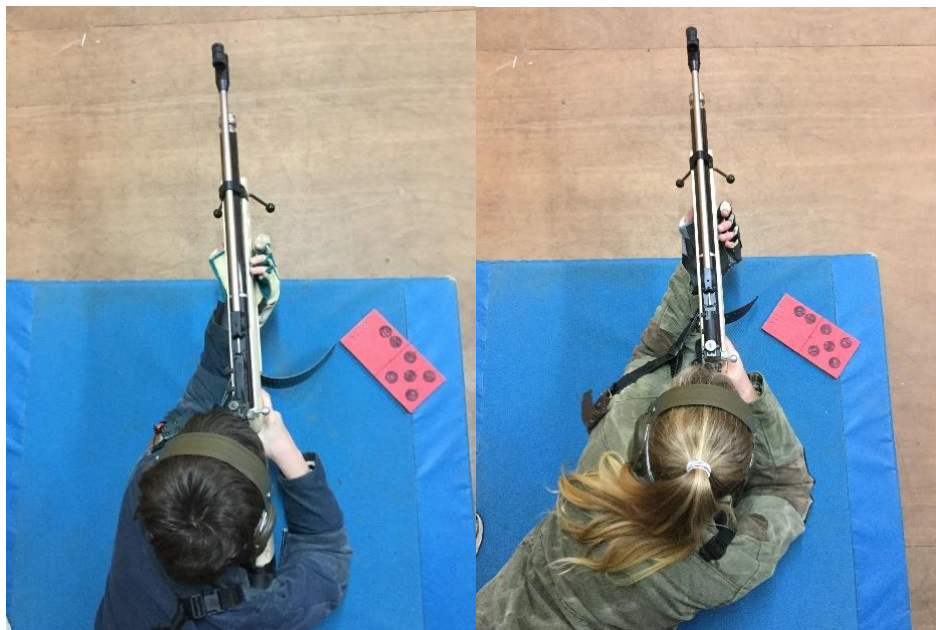
*A '10' with every shot.*

### **The basic position.**

I teach a basic position so that the pupils will be aware of the shape of the position and how it works to support the rifle and allow the firer to release an accurate shot from a relaxed and balanced foundation.

The pictures below are a good example of the shoulders, arms, hands and rifle.

The placement of the left elbow is very important. Too close under the rifle and the position will be unstable and tend to roll to the left. Too far out to the left and the firer will not get support from the sling.



**The photographs show the relationship in shape between the shoulders, arms and hands. Note that the angle of the body to the target varies but the support shape for the rifle is the same. This also demonstrates the difference in positional elements between firers of different stature.**

### **Common elements.**

It should be remembered that the basic position has common elements from pupil to pupil however the individual stature of the pupil will see variation take place. **A coach** should allow for this as long as the basic elements are there.

Only when a pupil strays from the basic elements should intervention be made.

This will happen, and as pupils grow you will also see their shooting position change too, though it should still retain the basic elements so that balance and relaxation within the position can be maintained.

#### **4.5 The production of a quality shot.**

After position, correct technique to produce a quality shot is the challenge.

I have always used a basic technique for the production of an accurate shot. It is based on training I did with County and Regional smallbore rifle squads and discussions I have had with regional and national coaches historically.

At the live firing trial I do not teach the whole technique as there is so much going on for the pupil to deal with, and the basic elements of the technique at this early time are as follows:

- a) Take up the first stage on the trigger (so it touches the second stage).
- b) Steady the sight picture.
- c) Squeeze the trigger so the second stage 'breaks'.
- d) Follow through on the shot.

#### **Taking those points one at a time:**

**a). Take up the first stage on the trigger** - a match trigger has two stages. 'Taking up' the first stage establishes finger position on the trigger blade and brings the blade back to a point where the internal mechanism takes up sear contact and 'touches' the second stage which is felt as a very light but 'solid' resistance.

The firer must hold the trigger in this position **without** breaking through the contact with the second stage whilst the other elements of the technique are completed.

**b). Steady the sight picture** – the firer must understand what the sight picture should look like and begin to develop the concentration to allow that sight picture to be steady.

This is achieved through the correct position, relaxed and balanced, and with practice the position should naturally align the sights of the rifle on the sight picture without the firer having any unnecessary tension in any part of their body.

This is very difficult at first and coaches will see legs being lifted and elbows being squeezed in to the body and hands really gripping the pistol grip and fore end of the rifle.

None of this tension helps accuracy.

It will take some time before a pupil understands the position and is able to relax properly within it.

**The coach** must understand this and maintain the gentle and quiet reminders so that the firer learns the position incrementally and gradually builds up the ability to produce a consistent, relaxed and properly oriented position and therefore a 'still' sight picture.

**The coach** must understand what to look for and be able to recognise anomalies in the firer's position and explain what they are and how to correct them. This requires constant observation during firing.

If you choose to physically move a pupil's arm or leg to demonstrate the required correction remember to ask!

**Or**, tap the shoulder on the side the leg needs to move and give an instruction ('bend this right knee' for instance), I find that a 'safe' way to direct the pupil into corrections in limb position.

**c). Squeeze the trigger so the second stage 'breaks'** – this is a 'biggy'!

Squeeze the trigger – some coaches say: 'press', but I prefer 'squeeze'.

Why? Because learning to squeeze together the index finger and thumb gently, will break the trigger for an accurate shot.

*A '10' with every shot.*

The right hand properly placed on the pistol grip of the rifle should have 3 fingers in a light and passive grip around it and the index finger with the centre of the finger pad on the trigger blade – the thumb should be placed up the back of the pistol grip.

This allows the firer to squeeze gently between finger and thumb – of course only the finger can move – and gently increase pressure on the trigger until the second stage breaks and the shot is fired.



**The correct hand position with thumb 'up', three fingers curled around the pistol grip in a passive grip and the pad of the index finger on the trigger blade. The second stage of the trigger should always be 'squeezed' until it 'breaks' and releases the shot. The finger should stay on the trigger and finish on the trigger when the second stage travel comes to a rest.**

Many pupils find this difficult to learn at first and when they do their initial training at the first trial I ask them to close their eyes and 'feel' the trigger by establishing a contact from their mind, through their arm to their finger tip.

This works but often in the heat of a live firing trial this is forgotten and prompts another quiet reminder from **the coach**.

**d). Follow through on the shot** – this is the final element of the simplified technique for producing an accurate rifle shot.

Maintaining the relaxed and balanced position for perhaps 2 seconds after the second stage is broken ensures the rifle is not disturbed and remains on target whilst the shot exits the barrel.

The firer should look to maintain the sight picture and not move in any way during 'follow through'.

***NB: Not moving during the follow through includes the finger on the trigger which should maintain its position on the trigger blade and not be taken off the trigger or 'flicked forwards' (a favourite).***

***When the trigger breaks the index finger pad should simply stay on the trigger in the position where the trigger finishes.***

**Note: 'Follow through' is slightly different in smallbore rifle** as the rifle has a recoil signature and 'follow through' allows the rifle to settle back onto the sight picture after the shot is fired.

I always expected my firers to: 'look for the second sight picture' in follow through before moving to reload the rifle.

Identifying the same sight picture during follow through that you had when you broke the second stage of the trigger ensures the firer does not move and affect the fall of shot on the target.

This is equally important for non-recoiling air rifles as well as any rifle with a recoil signature.

***N.B., It should be noted that looking for this second sight picture is just as important for a spring powered air rifle which has a very complicated firing cycle and therefore a complicated recoil signature and the rifle must be allowed to complete the firing cycle and recoil signature before the firer moves to reload.***

*A '10' with every shot.*



**Tip of the finger on the trigger, correct 'cant', good head position – all in a balanced and relaxed position. Focusing on shot technique.**

#### **4.6 Reloading the rifle.**

The pupils should be taught how to reload within the second trial.

The reloading sequence for smallbore rifle or pneumatic air rifle I use is as follows:

- Take the rifle out of the shoulder and rest the butt on the shooting mat whilst supporting the fore end with the left hand/arm.
- Lift the bolt and pull the bolt back. This will cock the trigger on the air rifle or eject the spent cartridge on a smallbore rifle.
- Reload with either pellet or cartridge and close the bolt.
- **DO NOT** place the right hand back on the pistol grip or place the finger on the trigger!
- Put the right hand to the back of the stock and lift the cheekpiece to the firers cheek which will allow the butt to sit into the shoulder in the correct place consistently. Note – this should be done with the firer looking at the target, the head should not be dipped down to the rifle stock but instead the rifle cheekpiece brought up to the firers cheek.

- If this is done correctly and accurately the firer should re-acquire the sight picture they had for the first shot on the black.
- If the correct sight picture is not re-acquired the firer should adjust the rifle position in the right shoulder rather than adjusting what should already be a correct shooting position.

The reloading process needs to be trained in carefully. It must be achieved consistently and with good discipline otherwise accuracy and good quality grouping will not be achieved.

The firer will slowly develop an ability to 'feel' the shooting position and the position of the rifle within it, and this will allow them to identify when it is correct or when it needs appropriate adjustment.

Changing position to compensate for an incorrectly replaced rifle simply adds a second mistake to the first and will adversely affect grouping and accuracy.

***Note: It is a mistake to adjust the position when the rifle is not replaced into the shoulder correctly, yet this is the first reaction of a firer especially those new to the shooting discipline.***

***It is important that the coach observes this and corrects the firer with reminders and explanations.***

## **5. Moving forward after the initial trials and live firing.**

It is far too early at this stage for the pupil to 'run' with their shooting.

The proper and correct position and technique must be practised through two or three more shooting sessions before shooting for a score can be considered.

That is how important good basic technique is to shooting accurately.

The pupils with more potential will become your front runners and those with reasonable potential will become competent shots capable of strong scores.

Train 6 or 8 of these pupils and you have the basis for a very strong team.



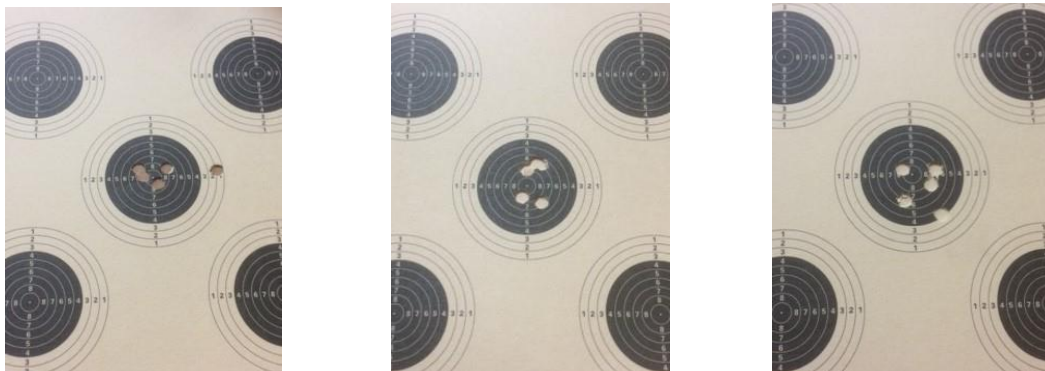
*A '10' with every shot.*

The process I use with new firers who have now been selected for a place on the timetable is generally as follows.

**Everybody** follows this process no matter how much potential they have.

### 5.1 Early training process:

- **First trial** – safety training, equipment familiarisation, shooting position and trigger basics.
- **Live firing trial** – 5 shots grouping in full jacket and sling etc. No artificial support, work straight off the sling. 5 shots whilst being coached through the basic shot technique. Pupils should be taught to reload from shot No2 and expected to complete a full reload and shot technique on shot No5 with minimum reminders from the coach.



Here are 3 examples of groups shot by pupils at the first live firing trial. All 3 pupils were selected for places on the timetable. The group on the left was exciting however that pupil did not progress as well as the other two firers who are now shooting for a school team!

All 3 groups are reasonably 'round' – a good sign. They are also 'straight' (in vertical alignment). Given the rifles are sighted in for experienced shooters this is also a good sign.



***Beware! I actually had one pupil who failed to hit the card at all with all 5 shots! You will see all sorts of group shapes and spreads at the trials. As mentioned elsewhere, anyone grouping 3 or 4 of their 5 shots at this first live firing trial has potential.***

- **First timetable detail** – once established on the timetable the pupil must be expected to both remember and turn up on time. (I never allow a pupil to shoot if they are late whether it is my captain or a new firer).

At this first timetabled shoot the new firer completes 2 groups of 5 shots one on each of two separate blacks side by side. The first group is to refresh what they learned at the live firing trial, the second group on the second black requires them to turn their shooting position (covered later), and at this point they must be taught to add the final element of shot technique, which is **correct breathing**. (again, covered later).

- **Second timetable detail** – the pupil should be able to get their shooting gear (jacket etc), on by now and this time they need to do 10 shots on a card, 2 shots at each black. This requires them to turn and adjust their position for each pair of shots – they should have been given some idea of this at the previous session (see: 'turning position' later).

The coach must pay close attention to how they turn their position and make sure they do this correctly – the 'shape' of the position must not change, just the orientation so that the firer points their correct position at the next black without changing the shape of the position.

This is crucial to future consistency (covered later).

**The coach** should now be asking them to remember what comes next in building the prone position or completing a shot. This makes the pupil think back and remember and is very good at cementing the requirements into their minds.

***N.B. At this point the pupil has still not had the rifle sighted in to take account of the individual way in which the rifle has a point of impact on the target due to their individual position and stature. Consequently, the fall of shot may still not be in the middle of the target, so it must be stressed that this is still not important, and the establishment of consistent position and technique are the key to future scores.***

- **Third timetable detail** – at last! This is when I allow the first score to be shot. The pupil receives 13 pellets (or bullets for smallbore), and shoots a group of 3 sighters on a sighting black to the left of the score card so that I can adjust their sights to bring the group into the middle of a target 'black'. Then they turn their position onto the first black and fire their first group of two shots before moving round the card as shown above in the second timetable detail.

There is no reason why a new firer can not come away with an initial score in the mid-80's on their first score card. I have seen it many times and even had a few rare 90+ scores from those with a 'natural eye'.

## **5.2 Correct breathing.**

The human eye needs oxygen to see accurately.

The firer needs to be 'still' when they break the second stage of the trigger for the shot.

***Breathing and being 'still' do not exist together.***

If you breathe whilst in position for a shot, the rifle sights will dip below the black when you inhale and rise again when you exhale.

It is important therefore, that when you are preparing to break the trigger for the shot, you are not breathing in or out.

As will be seen with the shot technique, the shot will be released after you have exhaled and are pausing your breathing.

**The next intake of breath is delayed until after the 'follow through' is complete.**

A '10' with every shot.

### 5.3 The complete technique for releasing an accurate shot.

*Let's assume that the firer is in the correct position, and that position is balanced and relaxed and the rifle points naturally at the target to provide a correct sight picture on the black which is to receive the shot.*

For me, the mantra on technique when coaching the pupils has always been:

***'Take up the first stage on the trigger, breathe in breathe out, breathe in breathe out - (soft gentle shallow breaths), stop breathing (do not breathe in again), steady the sight picture, squeeze the trigger and follow through'.***

***Resume normal breathing after 'follow through' has been completed.***

This is the technical process for generating consistently accurate shot release from the rifle.

This is what I consider to be the minimum practical technique for accurate shot production on a consistent basis.

You can not get around this, firers **must** be consistent with the building of their shooting position and their shot technique if they are to achieve good and high-quality scoring and be successful in competition.

Broken down the complete shot technique works as follows:

- **Take up the first stage on the trigger** – puts the firer in control of the shot release and is a 'holding' position against the second stage of the trigger which is ready to be broken. You can release the first stage again if required by removing the pad of the index finger and then start again if you wish.

- **Breathe in breathe out** – this is completed twice. The breathing supplies the eyes, brain and body with enough oxygen to complete the shot whilst not breathing from the: 'steady the sight picture' element. The firer will get used to this. The completion of the 'breathe out' stage of the second preparation breath should see the sights of the rifle return to the sight picture on the target 'black' which was achieved from the building of the balanced and relaxed prone position.
- **Stop breathing** - having just exhaled after the second breath the firer must stop breathing (do not breathe in again).  
**Note: This means that there is little air left in the lungs and the ribs and skeletal frame can settle onto the bed and be 'still' for the shot.**
- **Steady the sight picture** – the 'still' position now achieved allows the firer to break the trigger for the shot and follow through without any unnecessary muscle tension or movement which would prevent the rifle from firing the pellet or bullet accurately to the intended 'black'.
- **Squeeze the trigger so the second stage 'breaks'** – with the index finger and opposed thumb in the correct position the firer can gently squeeze the two digits together.

The thumb will remain static and the pressure caused by the pad of the index finger will overcome the resistance of the second trigger stage which will 'break' and release the shot.

I can't think of another sport with a technical movement this small and yet so significant to good performance. **Correct trigger technique is crucial.** Consistent trigger technique must be trained in. The firer will be mechanical about it in the early stages of learning but will eventually establish a connection from the brain, through the right arm and hand to the pad of the index finger and 'think' the shot away without the need to consciously consider squeezing the trigger. **Such a small movement within the shot production process and yet there are over 150 words here in what is a simple explanation of trigger technique!**

- **Follow through** – the firer must not neglect the follow through after the shot is released. Maintaining the steady sight picture from the 'still' position by correct follow through is crucial to accurate shooting and if neglected or inconsistent, both quality grouping and scores will suffer. It only takes two seconds to complete. (***The firer can now breathe normally after the shot is complete – the firer will have stopped breathing for approximately 5 seconds***).

***Note: The oxygen stored for the shot from the two breaths is sufficient to allow the shot to be made in the next 5 or 6 seconds. If a pupil is 'hanging on' to a sight picture without releasing the shot, they should take their finger off the trigger, look away then look back to the sights and start the technique again from the beginning.***

## **6. The shooting position in detail.**

**Building the shooting position is a complicated skill in itself.**

The shooting position should support the rifle, on aim at the target black, in a ***relaxed and balanced*** way, without unnecessary tension in the firer's body.

In other words, once in the ***correct*** position, the rifle should point naturally at the target black from within the balanced and relaxed shooting position.

### **Balanced.**

The firer's position should have both elbows on the shooting mat with a fairly even weight distribution between them. The firer will develop their own level of balance depending on their stature, however balance is to be encouraged.

The relaxed relationship between both arms and the shoulder/upper back width is crucial to consistent shot release.

With balanced arm/elbow position used consistently from shot to shot, the shoulders will be able to relax.

## **Relaxed.**

The combination of shooting jacket and sling allow the firer to relax within the jacket and relax the left (supporting) arm, allowing that arm to 'hang' on the sling.

The sling should support the weight of both the firer's left forearm and the rifle. This allows the left hand to relax and not grip the rifle and therefore any recoil or movement of the rifle on the shot is natural to the rifle type and will be consistent for each shot.

It is worth noting here that if the left arm and hand are relaxed that the weight of the rifle sits on the **open** hand and is transferred to the ground through the bones in the firer's forearm.

No muscular tension in the left arm/hand should be used to aim the rifle.

In fact I would say that there should be no tension at all in the firer's: left hand, both arms or shoulders to 'make' the rifle aim at the target black.

**(Note: I do allow a passive and gentle grip by the 3 fingers of the right hand on the pistol grip of the rifle to help maintain the 'cant' or lean of the rifle, to the left, so that the sights are brought in front of the right eye).**

The firer's head should be as close to upright as possible to keep it '**in balance**'.

**The coach** should watch a firer reloading to see that the rifle is returned to contact with the firer's cheek and the butt plate located in the shoulder second.

The head should be upright and addressing the target where the firer wants it to be.

The head should not be pressed down from this position onto the cheekpiece of the rifle as it will change the head position and also the position of the rifle in the shoulder (too low).

A '10' with every shot.



The prone position with both legs straight can be more comfortable for some people.



The prone position with right knee raised towards the torso



The right knee has been raised too high and is likely cause discomfort in the back and legs

**The pictures above show 3 variations on position. At Terra Nova we coach the middle one. The left picture shows an option however the right picture should be avoided. This applies to both rifle disciplines.**

### **Skeletal frame.**

The firer should be taught to allow their skeletal frame to settle down onto the firing point in order to provide the most relaxed and solid base from which the rifle itself, can be ***'allowed to shoot'***.

The following pictures show further information regarding the structure of the position.

It should be noted by the coach that a pupil who squashes their position down close to the shooting mat will almost certainly not have the recoil pad of the rifle in the correct place in their shoulder and this should be corrected by adjustment of the sling and possibly a longer rifle.

The coach should be able to spot this either by observing the firer's position or by watching the reload process completed by the firer.

The firer should have their head position addressing the target and lift the rifle up to their cheek and into their shoulder second.

If they lift their body, jam the rifle into the shoulder then put their head 'down' onto the cheek piece, this will create an incorrect position.

A '10' with every shot.



Low position 1 – There is a small angle between the ground and the left forearm and the left hand under the stock is close to the front of the rifle



Low position 2 – Right elbow is bent to a large angle and the head is angled forwards to get the eye behind the rear sight



Low position 3 - The elbows are far apart and the torso close to the level of the mat



Low position 4 - Looking down from above, the low position is identifiable by the elbows being extended away from the sides of the body and the left hand positioned much further forward of the trigger than in the high position

### **'Allowed to shoot'.**

Essentially this is what the firer is trying to achieve with the correct position.

The rifle should be allowed to shoot from within the position without the way the rifle shoots being affected by instability or tension within the position or indeed by an effect caused by the firer themselves.

### **Checking the position.**

There two ways to do tis that I have found useful.

a). Ask the firer to say: 'now' when they feel they have a good sight picture from a balanced and relaxed position.



*A '10' with every shot.*

Then ask them to close both eyes and relax: feet, legs, body, shoulders, arms and hands.

Ask them to open their eyes and see whether the rifle is still pointing at the black. The chances are it won't be!

Ask: 'Is it pointing: up, down, left or right?', then if not centred instruct the firer to make the correct positional adjustment to gain the correct sight picture.

Get them to close eyes and check again and it will always be much closer to retaining the sight picture.

With practice, this will enable them to build the correct position **with** a correct sight picture regularly.

### **'Freeing the right hand'**

b). Sometimes I ask a pupil in a good position to carefully and gently uncurl their fingers from the pistol grip of the rifle and move their hand away from the stock.

If the position is good the rifle will not move off a sight picture and will remain as firmly stable as when the right hand was on the pistol grip.

If the rifle moves the position was not balanced correctly and some tension from the right hand and arm was creating the position through tension.

Tension should be avoided.

If the rifle moves, get the firer to check position and try again.

This is another way for the firer to understand the shape and feel of a correct shooting position.

### **Effect caused by the firer.**

When new firers shoot for the first time, it is not uncommon for them to blink on rifle discharge or 'jump' or 'flinch'.

A '10' with every shot.

The firer must be completely still when the shot is released and allow the rifle to complete the full firing cycle before they move to reload.

The section above on technique covers this in more detail, please refer to the different elements of technique and in particular: 'follow through' and 'looking for the second sight picture'.

## **7. Turning the position.**

- ***The shooting position can only point the rifle in one direction.***
- ***If it is correctly built and balanced and relaxed, the position can only allow the rifle to fire accurately at one black on the target.***
- ***From that position, the rifle can only be forced to point somewhere else through muscle tension. This must not be allowed to happen.***

The firer must understand this and be regularly reminded of the correct process required to point the rifle at a new black by turning the position using the left elbow as a pivot point.

The position should not change shape when turned to point at a new black.

When turning the position, unwanted muscle tension must not be allowed to creep in. It is very easy to turn nearly far enough and then create a bit of tension to complete the sight picture on the new black.

The firer's brain says: 'nearly there – just squeeze that right elbow in and you will have your sight picture!'.

**Naughty brain!** Don't listen to it! The coach should regularly remind the firer to close their eyes relax and then look to see where the sights are actually pointing and correct any deviation from a true sight picture.

For a new firer, maintaining the correct shape of their shooting position when turning to a new black is very difficult and takes time to learn.

*A '10' with every shot.*

## **7.1 Turning the position. Is it easy?**

No!

No, it isn't!

- ***A firer's shooting position should always be the same shape.***
- ***It should always be balanced and relaxed.***
- ***It can only point the rifle in one direction.***

Now imagine the firer sets up their shooting position on a turntable and the centre point of that turntable is under the left elbow (for a right-handed firer).

If you turn the turntable, you can bring the rifle to point at another black which is horizontally spaced from the first black that the firer engaged.

Or without a turntable, the firer pivots around the position of the left elbow to create the effect of turning.

At Terra Nova we shoot 10 metre air rifle, so the targets are 10 metres away.

The distance from the firers left elbow to the centre of their body ('tummy' or stomach is a good reference point when referring), is approximately one metre.

The distance from the firers elbow to the front sight is approximately half a metre.

There is therefore a relationship between how far the centre of the body is moved sideways to how far the front sight moves in order to produce a sight picture on the next target black.

The blacks on a target are approximately 100mm apart and 10 metres away.

When you work out the numbers, the distance the centre body needs to move is millimetres to achieve the new sight picture!

## **7.2 The rest of the positional elements.**

In order for the rest of the shooting position to stay the same from black to black, the rest of the firer's body frame must move its position in order that its relationship to the centre of the body remains the same and the shooting position stays the same shape – from left hand to the feet.

This means:

- **The right elbow must move to keep the arms/shoulders/rifle relationship the same shape.**
- **The legs must move in the same direction as the body centre.**

This is really difficult to learn for young firers and they need to be able to 'think' where their legs and feet are and understand in their mind what the correct shape of the position 'feels' like in order to identify whether they have turned their position correctly.

***N.B. Only a correctly turned position will re-establish the correct sight picture in a balanced and relaxed way and allow the rifle to shoot without adverse influence on the point of impact of the shot on the target.***

***This will allow the rifle to shoot the next shot to the same place on the new black as it did on the previous black.***

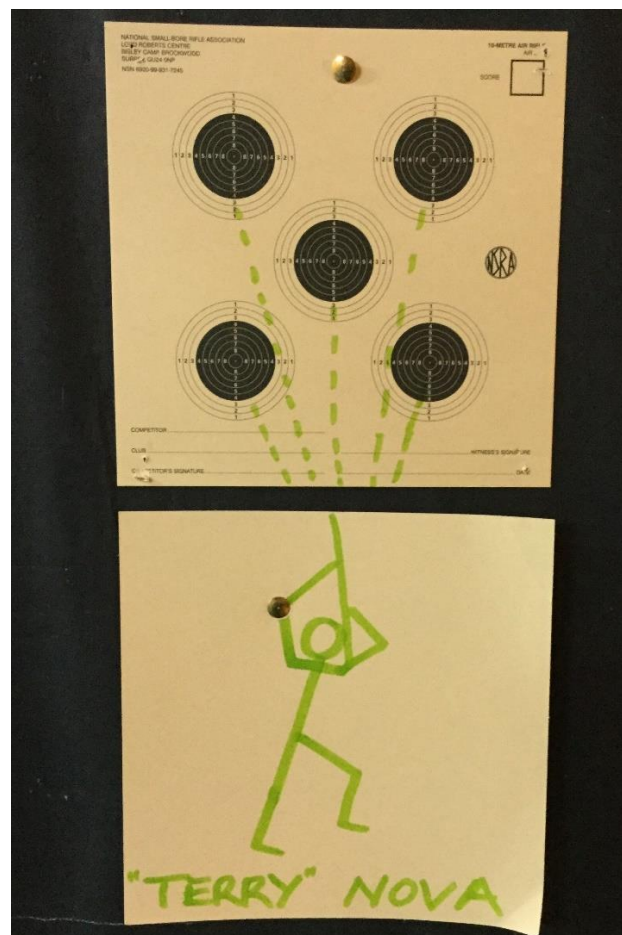
### **'Terry Nova' – the assistant coach.**

Over the years I have come up with a variety of coaching aids to help the firer's understand things through visualisation or by remembering mantras.

One of my favourites is my assistant coach: 'Terry Nova', who on hundreds of occasions has helped a new firer to understand what 'turning the position' actually means.

I have included a photograph of this most shy of assistants below.

*A '10' with every shot.*



**My assistant coach – ‘TERRY NOVA’! He demonstrates the ‘pinned’ left elbow (it’s a drawing pin...), that the position should rotate around and shows that when doing this the shooting position itself should not change shape.**

**Moving the point of aim down to a lower level black.**

Once lateral movement is explained and understood **the coach** needs to add the necessary instruction to teach the firer to move the aim point of the position up and down.

**Keep both elbow positions still.**

Unlike moving the rifle sideways, the firer must move the body centre forwards or backwards to depress the rifles point of aim or lift the point of aim.

This is achieved by moving the body centre (tummy), forwards or backwards and moving the legs the same distance in the same direction.

By keeping both elbows still, they act as a pivot or fulcrum for the rifle and moving the body centre backwards will lift the rifles point of aim whilst moving the body centre forwards will depress the rifles point of aim.

Just like lateral movement, the necessary distance to move the body centre is millimetres.

Through this form of movement, the position can remain balanced and relaxed – it is simply re-oriented to point at a different level on the target.

### **7.3 Examples.**

a). As an example, imagine a new firer is not relaxed but has a sight picture – they may be lifting the rifle slightly with muscle tension in their left arm.

You spot this whilst coaching and explain the need to relax and immediately the firer's point of aim drops below the target black.

In order to lift the rifle again they must move their body centre back, 'rocking' the rifle on their fixed elbow positions and this lifts the rifle back onto the black for a relaxed shot.

b). A second example is for moving the rifle to a lower black after the top row of blacks have received shots.

The lower black is below and left of the top row and therefore the firer must turn their prone position so that it is above the lower black, then move their body centre forwards to lower the point of aim on the lower black.

This is two separate movements and the most difficult positional adjustment. It is however a good example of the most frequent need to depress the rifles point of aim and maintain a balanced and relaxed shooting position.

A '10' with every shot.

**Maintaining that balanced and relaxed position from black to black.**

***It takes a while to learn and understand what a relaxed and balanced position feels like for a new firer on just one black.***

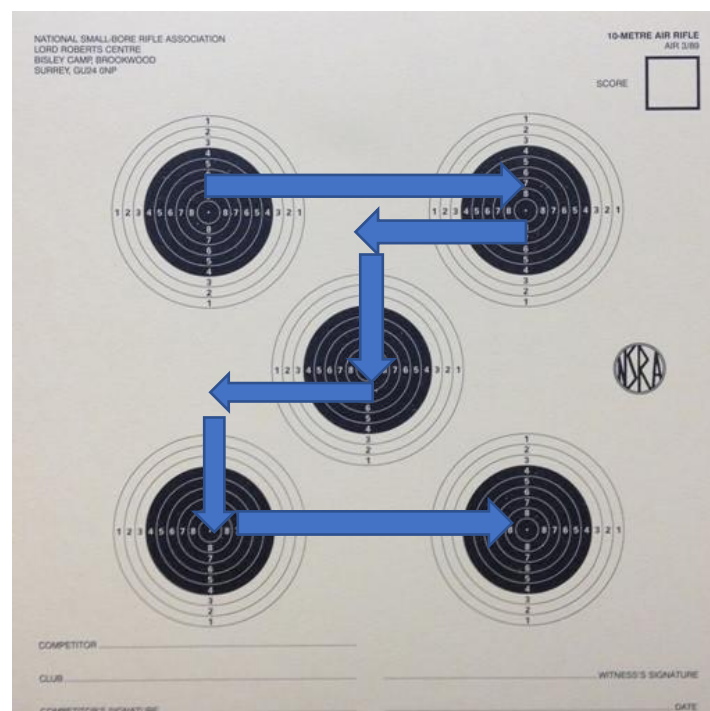
Therefore it should be understood **by both coach and firer** that learning how to turn the position, whilst keeping it balanced and relaxed during the negotiation of a scorecard, takes a lot longer.

The firer must over time and a few cards learn what the balanced and relaxed position feels like on each black, once the position has been turned to naturally point at each black as the scorecard is negotiated.

It is very easy to forget to check the position mentally before committing to the technique for the shot. Here is one way to make that happen **as a coach**.

The following diagram shows the appropriate route around the target when turning the prone position and lowering the point of aim for the lower blacks:

**The 10 metre Olympic air rifle target.**





*A '10' with every shot.*

The firer must learn how to make these six adjustments of the orientation of the position so that the rifle points naturally at each black from the shooting position and an accurate shot can be released.

### **Smallbore rifle target.**



**The above image shows a Cadets & Schools 25-yard target.**

As can be seen the smallbore 25-yard target has two rows of blacks which can be treated for position movements in the same way as the air rifle target – left to right across the top row then positional adjustment to the low left black before moving laterally to the bottom right black.

This is actually only 5 positional adjustments compared to the 6 adjustments for the air rifle target.

It is also worth noting that the '10'-ring is significantly bigger than the '10' dot on the Olympic air rifle target.

Add to this the larger calibre 0.22 calibre ammunition and the smallbore rifle target – despite being further away, is actually easier to shoot well technically, than the Olympic standard air rifle target.

The '10' ring is much proportionally much larger and the larger diameter shot hole will be closer to the centre of the black.

#### **7.4 Checking the orientation of the position.**

If the shooting position is correct and balanced and relaxed, the rifle will point where it wants to point and not where muscle tension in the firer makes it point.

If the firer is firing on a black having moved position and the shot falls significantly outside the centre and away from previous grouping, the coach needs to get the firer to check their position.

#### **Close your eyes and check the position mentally.**

If this instruction is given, ask the firer to check: feet, legs, body, shoulders, arms, hands – mentally with their eyes closed.

**The Coach should** ask them to relax all of those positional elements.

Then ask them to open their eyes and check the sight picture. The probability is that they will no longer have the sight picture they started with, which means the rifle was not pointing naturally from the position and now that it is, it is in the wrong place on the target.

The position is now relaxed and the rifle points naturally and un-influenced in the direction it wants to point.

If the rifle is pointing high and left then the position adjustments are to turn the body position left (so the rifle pivots on the left elbow to the right) and move the body centre forwards to pivot over both elbows to bring the sights down onto the target black.

A '10' with every shot.

**Note that moving the body position one way actually turns the rifle sights in the opposite direction on the target as the position pivots on the left elbow.**

## **8. A 'ten' with every shot – shooting for score.**

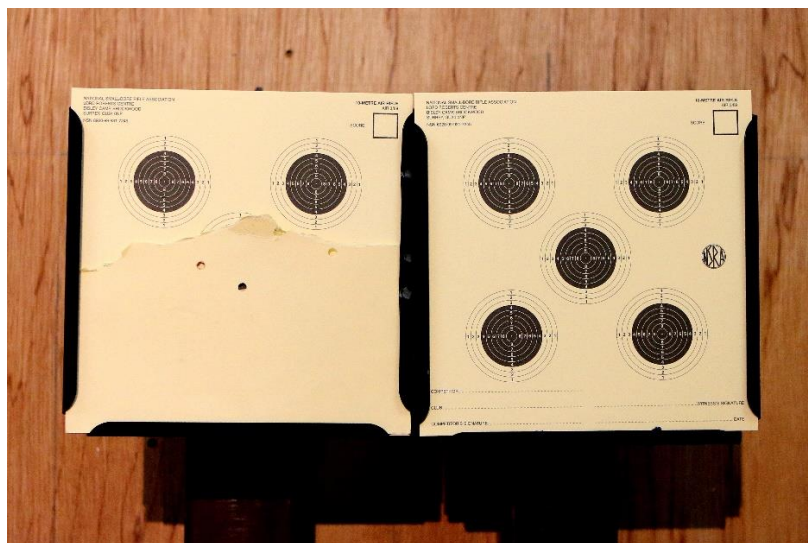
This document covers the training programme at Terra Nova school which in time and with consistent work, allow the junior firer to have the opportunity to shoot a good number of 'tens' on any given scorecard.

### **Sighting in for the individual.**

Each firer will shoot the rifle in a slightly different way and therefore the fall of the group of shots on the target will alter from firer to firer (especially with a recoiling rifle – pneumatic air rifles are less affected).

The firer should have a number of sighting shots to establish a group and then the sights can be fine tuned to bring the group into the middle of the black.

I use a system of 5 sighters. 3 on the left-hand sighting black and 2 on the right-hand sighting black before moving onto the scorecard. In matches I will allow extra sighters in order to settle any obvious nerves.



***Quick note: If you are doing this right, you will also be nervous during a match! I am still nervous in matches after 28 years!***

### **What the coach should expect.**

The structured approach and appreciation of the challenge that faces a pupil, especially at the beginning of their shooting career, means that the pupil will be in the best environment to become a safe and competent rifle shot.

**A coach can expect** to develop teams which will shoot strong scores in competition if the above approach is well managed.

This method of training I have developed over 28 years as a rifle coach in both smallbore rifle and 10 metre air rifle and through my own training and competition shooting over a lifetime of different ballistic disciplines.

## **9. What else can you do?**

### **Reward success and have fun.**

I have always given away sweet rewards for good performances (Those with a 'fantastic tang' seem to be well received!).

It can be for a personal best score. I always give sweets for 97+ in air rifle (it used to be 98+ in smallbore rifle which is easier to score high).

It may be a reward for the number of '10's a firer achieves. I often ask a firer how many '10's they think they will shoot. They give a number, I judge how realistic that number is, adjust it if necessary then reward if the target number of '10's is achieved.

This focuses the firer's attention away from score and towards shooting: 'a ten with every shot', (see what I did there?).

Sometimes we move away from scoring and have grouping competitions. With no sighters allowed the firer won't expect to hit the 10 dot on an air rifle target and as it doesn't therefore matter where the group lies on the target, they can concentrate on position and consistent technique to produce the sweet winning group of the evening or of that detail.

*A '10' with every shot.*

## **Competitions.**

The **Preparatory Schools Rifle Association** run rifle and pistol competitions every term and information is available on their web site:

<http://www.psra.info/>

## **Training by 'fun' shooting.**

You can invent fun shooting competitions – especially after matches have been completed:

**'Blind' shooting** involves the scorecard being back to front so that the firer shoots through the reverse side of the target trying to hit the blacks on the other side.

This is really good for muscle memory, both in position and orientation on the target.

**Speed shooting** is a race to finish with the first to finish calling: 'STOP STOP STOP!'.

Compare PB scores and give the lower firer a plus handicap to bring their score up to the highest opponents PB.

First firer to finish stops the other firers denies them shots and therefore points.

This fun exercise teaches the firer to achieve an early sight picture and shoot it which is good for rhythm and timing under normal conditions.

**Shooting for low score** means trying to aim off the centre and hit the lower scoring rings. This demonstrates how difficult it is to miss the middle as at first the firer will still be hitting 7/8/9/ or even a 10 and it gives them a real understanding of how accurate a good sight picture is.

I score 10 points for a complete miss to add a little spice to proceedings!

*A '10' with every shot.*

These are just 3 options for fun shooting but there are so many more that could be made up.

It all adds to the fun and keeps the mental challenge keen for the firers and remember without some fun, too much work will make your shooters dull.

### **10. My favourite number!**

Ever since I was a child '10' has been my favourite number! How fitting it should be so important in my later life as a shooting coach.

Shooting one '10' is the main technical discipline a firer needs to master in terms of shooting a rifle for score. After that it is about: consistent position, discipline and mental approach.

### **Adelaide.**

As a final thought I would like to recall the first 'possible' shot by one of my firers after we had switched from smallbore rifle to 10 metre air rifle.

(We had many many 'possibles' with smallbore rifle on junior targets – the Olympic air rifle targets are much more difficult to score on).

The pupil in question was up and coming and clearly going to be very good.

This particular evening, I decided that having grown, Adelaide needed to move up a rifle and thus to the better MPR rifles we use.

The trigger is more precise and generally the rifle feels better all round.

Adelaide sighted in and commence the scoring shots. I called them whilst watching the fall of shot on the target.

'10, 10, 10, a perfect 10, 10, perfect 10.....', and it was at this point that I realised what was about to happen. I stopped calling the shots and watched with growing anticipation.

When the last shot went in I whooped for joy! A perfect card! Incredible!

Remember: **Try and shoot: 'A ten with every shot!'**

A '10' with every shot.

**That first 'possible'.**



**The first ever air rifle 'possible' with 10 metre air rifle at Terra Nova and as far as I am aware the first ever recorded Prep School 'possible' with air rifle.**

**There have been six more since – all of them displayed on the Terra Nova range!**



# **APPENDIX**

## **TERRA NOVA SCHOOL**

### **SAFETY RULES**

*A '10' with every shot.*

**The Terra Nova School safety rules are simple and give the coach a clear controlling discretion.**

**In my time I found that the pupils learned them well and respected them and I rarely had to remind someone for a transgression.**

**Because the rules are so clear they are simple and easy to follow.**

### **The Safety Rules:**

- 1. Do not touch a rifle without permission from Mr Curtis.**
- 2. Do not touch ammunition without permission from Mr Curtis.**
- 3. Do not load a rifle without permission from Mr Curtis.**
- 4. Do not commence firing without permission from Mr Curtis.**
- 5. Do not leave the firing point, either to leave the range or to change targets without permission from Mr Curtis.**
- 6. Do, at all times, take care and conduct yourself in a sensible manner.**
- 7. Enjoy your shooting and be the best you can be.**