NATIONAL RIFLE ASSOCIATION

RANGE SAFETY OFFICERS' HANDBOOK

January 2025

Edition Three

NATIONAL RIFLE ASSOCIATION

Range Safety Officer Handbook

Printed January 2025

Edition Three

Edition Three
January 2025

National Rifle Association
Bisley
Brookwood
Surrey
GU24 0PB

Tel: 01483 797777 Fax: 01483 797285
Email: info@nra.org.uk
www.nra.org.uk

NRA Range Safety Officer Handbook

FOREWORD

This handbook has primarily been written to accompany the NRA Range Safety Officer Course, but we hope that it will be useful in providing guidance on the safe running of ranges in the United Kingdom regardless of whether or not the reader has attended the full course.

The main aim of the course - and of this manual - is to enhance range safety by providing practical and relevant training and guidance for club shooters who may not have had any formal training in the practical aspects of running ranges. It is not specific to any particular shooting discipline or type of range.

The handbook is not in any way presented as being the last word on how to run ranges, although it does offer some suggestions as to what might constitute best practice based on long and extensive experience of such things. How a range is run is a matter for the operators of that range, obviously with due regard for safety and legality. However, as far as possible, procedures should be very similar from one range to another. The more uniformity the better, simply to minimise the chances of any unnecessary misunderstanding, embarrassment or danger arising from shooters being unused to an unfamiliar range.

Shooting clubs in the United Kingdom use a huge variety of facilities. Despite the multitude of different designs and purposes, common principles apply to the running of *all* ranges. These principles are the basis of the NRA Safe Shooting System, which is the foundation upon which the training is based.

This manual covers much of the classroom material from the course. However, one thing that it cannot do is act as a substitute for the exercises where attendees are given ample practice in running live ranges, so we strongly recommend that at least one member from every club should attend the course if possible.

This manual has been produced as guidance for RSOs who will be involved in the running of civilian, rather than MoD, ranges, and some paragraphs (which are taken from the NRA Handbook) have been slightly edited to remove some references to MoD ranges. However, the principles are adaptable and applicable to all ranges.

2025 Edition 3

Contents

THE NRA SAFE SHOOTING SYSTEM 6
SAFETY RULES 10
SAFE SHOOTER (Safe Persons) 14
SAFE EQUIPMENT 36
SAFE PRACTICE 50
SAFE PLACE 54
CONTENTS OF RANGE ORDERS/REGULATIONS 56
IMMEDIATE ACTION FOLLOWING AN ACCIDENT 77
HIGH MUZZLE ENERGY (HME) PROCEDURES 93

The NRA Safe Shooting System

THE NRA SAFE SHOOTING SYSTEM

SAFE SHOOTER (SAFE PERSONS)

SAFE EQUIPMENT

SAFE PRACTICE

SAFE PLACE

Members of the NRA, or of clubs affiliated to the NRA, should know that in order to shoot on MoD ranges or at Bisley, they need to possess a Shooter's Certification Card (SCC) or be closely supervised by somebody who possesses an SCC endorsed for the category of firearm that is being used. At the same time as the introduction of this card, the NRA introduced (in consultation with the MoD) a four-point agreement known as the NRA Safe Shooting System.

When operating on an MoD range it can more or less be taken for granted that the range has been inspected and that everything regarding its maintenance and construction has been taken care of by the range authority. With civilian ranges, that may not be quite as much of a certainty.

On the RSO course, rather than referring to a ***safe shooter*** we tend to refer to ***safe persons.*** A range is only as safe as the least safe person associated with its use including (for example), those who are responsible for maintaining the range. ***It's not just the shooters who have to be safe; it's everybody!***

The Safe Shooting system: a simple compartmentalised recipe for ensuring range safety. The four elements are:

Safe Shooter

The safe shooter has the capability to use firearms and ammunition safely, and demonstrates that capability at all times on the range. The NRA probationary course, live firing elements of which are carried out under the one-to-one supervision of safe shooters, provides training that imparts the knowledge and skills on which such capability is based. The shooter's certification card provides an auditable record that responsible officers of the club, normally the chairman, has satisfied himself at the time of certification as to the shooter's ability to use firearms (identified by their suitability for an NRA shooting discipline or combination of NRA shooting disciplines) and ammunition (suitable for the identified firearms and within range safety limits) safely.

Safe Equipment

The individual shooter is responsible to his club chairman for ensuring that his firearm is serviceable and properly maintained, that the ammunition used results in performance within the range parameters for muzzle velocity and muzzle energy and that the combination of firearm and ammunition is safe and suitable for the circumstances in which it is being used. The NRA rules of shooting set out the limiting parameters for firearms to be used in each NRA shooting discipline.

Safe Practice

The NRA rules of shooting contain detailed regulations concerning the conduct of shooting for all its shooting disciplines. Qualified NRA RCOs are responsible for the safe running of MoD ranges for civilian shooters. Additional RCO qualifications are required if muzzle-loading firearms, or firearm/ammunition combinations developing a muzzle energy greater than 4500 J are being used on MoD ranges.

Safe place

A safe place is one in which the controls which are necessary to enable shooting to be conducted safely have been identified by a site specific risk assessment and directed through the range standing orders. All MoD ranges have site-specific range standing orders which must be complied with at all times. One of the responsibilities of the NRA RCO is to ensure such compliance by shooters under his or her control.

Within the four categories of the Safe Shooting System there are an infinite number of variable factors which can determine whether or not a day on the range is enjoyable and drama-free, or a lurking disaster just waiting for an opportunity. The controlling factor, which is also the most variable and unpredictable is, of course, the human element, upon which the quality of everything else is dependent.

Well, there we have it! Except it isn't quite as simple as it might seem, and it doesn't even really begin to explain what would make a range dangerous:

- To describe a safe range as being one where everything is done safely is something of a statement of the obvious chasing its own tail. In this handbook we'll consider some things that might well contribute to a marked lack of safety. Some of these things are obvious, some maybe less so, and there are far too many to be able to discuss (or even necessarily foresee) every potential disaster. However, by constantly thinking about the ways in which things could go wrong and making sure that every possible precaution is taken to prevent them happening, the chances of something happening are massively reduced.

- One thing that doesn't contribute to safety is a head-in-the-sand attitude that refuses to consider whether or not current practice is necessarily *best* practice. Just because something has always been done in a particular manner is not, of itself, good reason to continue doing it in that way. If safety can be improved by even slight tweaks in procedures or practice, those alterations should be made and if necessary reflected in club or range regulations.

Safety Rules

SAFETY RULES

1) ALWAYS PROVE A FIREARM IS UNLOADED WHENEVER YOU PICK IT UP, TAKE IT FROM ANYONE, OR HAND IT TO ANYONE

2) ALWAYS POINT THE FIREARM AT YOUR TARGET

3) DO NOT PLACE YOUR FINGER ON THE TRIGGER UNTIL YOU ARE READY TO SHOOT

4) NEVER POINT A FIREARM AT ANYONE

At the NRA we teach, right from the start of a new probationary member's training, a short and very easily remembered set of four safety rules.

Whenever the words *always* or *never* are involved there are almost sure to be exceptions. Rather than making each rule tediously long and difficult to remember, we have chosen to keep each rule short and to give examples of exceptions to each one.

All of these rules apply to the handling of all types of firearms on any range. In addition, Rules 1 and 4 apply to the handling of firearms under all circumstances, they are:

1. ALWAYS PROVE A FIREARM IS UNLOADED WHENEVER YOU PICK IT UP, TAKE IT FROM, OR HAND IT TO ANYBODY

It is essential that the condition of a firearm (whether or not it is loaded) is known when being handled.

Always assume that a firearm is loaded until proved otherwise.

Unless the firearm is being fired on a range, it must never be loaded and must be seen to be unloaded and safe. An example of where it would be perfectly proper to hand a loaded firearm to somebody would be that of a student undergoing the very early stages of training where they have not yet been taught how to load the firearm themselves.

With legitimate exceptions, such as that shown above, note that this rule applies **every time a firearm is picked up.**

One type of occasion where otherwise normally sensible people become complacent, sometimes to the point of appearing deliberately blasé about firearms safety, is when giving lessons or demonstrations involving firearms in classroom or other non-shooting circumstances**.** Any firearms that are used must be handled in accordance with the Safety Rules in the same way as they would if they were being used on the range. **It is essential that they are proved to be unloaded every time they are picked up,** having previously been checked prior to being brought into the classroom. The instructor has an absolute responsibility to handle those weapons with no less care, respect, and precision than if they were loaded and ready to fire. The mere fact that they are not being fired is no excuse for any poor handling which, at the very least, is likely to be taken as an example of acceptable behaviour by anybody who knows no better. Quite apart from which, the instructor is demonstrating their own lack of ability and professionalism.

2. ALWAYS POINT THE FIREARM AT YOUR TARGET

From the very beginning of their training, it must be instilled in students that **directional control of a firearm is absolutely essential**, and that the only direction acceptable is toward their target from the firing point designated for that particular target. The design and construction of most outdoor ranges is such that **the ability of the range to contain bullets is determined by the fact that they must be fired in a specific direction from any particular firing point.** If they are fired at an angle of elevation or azimuth which exceeds these limits the bullet may well travel beyond the range boundary. This rule does not preclude the 45° down ready position used in gallery rifle shooting.

One particularly dangerous practice that must be prevented is that of closing the bolt on a live round whilst the rifle is pointing above the top of the stop butt. This usually happens with a rifle fitted with a bipod when the firer closes the bolt whilst the butt is resting on the ground before raising it into the shoulder.

Many shooters exist in a state of blissful ignorance about how far a bullet will travel if fired with any appreciable amount of elevation above the top of the bullet trap on an outdoor range. As far as they're concerned, it will land within the danger area. It won't.

In the discipline of Target Rifle, the muzzle may be elevated directly above the target whilst a round is placed on the loading platform and the bolt pushed forward sufficiently to chamber the round. **However, the final locking down of the bolt must be completed with the rifle pointed towards the target.**

The reason for this apparent contradiction is simply that the firer's ability to place a round on the loading platform and push the bolt forward, whilst keeping the rifle pointed directly at the target, can be restricted by the tightness of the jacket and sling. Provided the final locking of the bolt takes place with the rifle pointing at the target, the practice is acceptable.

3. NEVER PLACE YOUR FINGER ON THE TRIGGER UNTIL YOU ARE READY TO SHOOT

This rule doesn't mean that the gun has to be carefully aimed at the target before the finger can be placed on the trigger, rather that the finger can be placed on the trigger when the firearm is in the shooting position pointing towards the target but before being carefully aimed.

4. NEVER POINT A FIREARM AT ANYBODY

This means **NEVER** point a firearm at anybody, as a result of horseplay, joking, lack of discipline, lack of thought, plain outright stupidity, or any other reason that can be thought of. There are of course some perfectly legitimate exceptions, such as these:

- An instructor checking a student's eye alignment with the sights, under strictly controlled conditions
- Visually checking the bore from the muzzle end for obstructions or condition, on firearms such as the Ruger 10/22, where it is not possible to look through the barrel from the receiver end
- Using a pull-through to clean the barrel – the gun is pointing straight at your hand.

Over the years there have been far too many fatal accidents which could have been prevented if these simple safety rules had been complied with.

Safe Shooter

(Safe Persons)

SAFE SHOOTER (Safe Persons)

THE HUMAN FACTOR…Safe (or Unsafe) Persons

Shooting is not normally a spectator sport; if anybody wants proof of this just watch, on a normal club day, what is happening at the back of the range while shooting is taking place. Barely anybody is watching the shooting. They are far too busy talking to each other or messing around with various bits of kit. It is this degree of inattention which potentially can lead to all sorts of trouble, especially if a shoot has finished and the firers have walked down the range to patch out their targets without the non-shooters having even realised that there are now people down range.

Incidents have occurred where people have handled firearms on the firing point oblivious to the fact that there are people downrange scoring and patching out targets. It is the job of the RSO to ensure that this does not happen.

It is far better to prevent incidents happening in the first place, rather than having to deal with them after they have occurred. The range commands need to be loud enough, and emphatic enough, for *everybody* on the range to be in absolutely no doubt as to what is happening at any given time. Good range commands, coupled with effective briefings, constant vigilance, and good natured control should go a very long way towards minimising the chances of anything unwelcome happening

The RSO, or at least somebody appointed by the RSO, should stay at the firing point at all times to ensure that firearms left there are not inadvertently handled whilst anybody is forward the firing point. The possibility of other firearms being handled behind the firing point, whether or not shooting is taking place at the time, can be minimised by introducing a strict rule decreeing that no firearms will be uncased other than on the firing point, and with the RSO's express permission.

Nobody is perfect, and every single one of us (no matter how experienced) is capable of making mistakes and occasionally getting things dangerously wrong. Embarrassing though it may be at the time, most of us would probably rather be prevented from inadvertently doing something dangerous, than having to live with the consequences of a tragedy.

In the rare event of an RSO having to shout urgently at somebody in order to stop a dangerous situation, the possibility is that a considerable amount of tension will be generated, which of itself can represent an increased danger. **The prime responsibility of the RSO is to run a safe range**. As soon as the initial problem has been defused, the RSO must make every effort to reduce tension and bring everything back down to Earth as soon as possible, rather than allowing themselves and anybody else, to be engulfed in what is commonly known as "red mist".

Target shooting is supposed to be fun, and people do it for many different reasons. But whether it is engaged in by serious competitive shooters, or by those who do it simply because they enjoy it for its own sake, the attitude of those taking part should never be anything other than "professional" for want of a better term. There is simply is no excuse for attitudes and practices which are unsafe, or potentially unsafe.

All clubs should strive to maintain a culture of calmness and responsibility. Everybody on the range should be aware of the possibilities of accidents occurring and if they see anything which is likely to cause trouble they have a responsibility to do something about it. Being wise after an event is no substitute for preventing it from happening in the first place.

No matter how many rules the club may have, how good the training programme, how well maintained the fabric of their club building, how well looked after the club rifles may be, etc., etc., nothing can prevent the human factor from compromising the smooth and safe running of a range.

Of the four elements of the NRA Safe Shooting System, the human part is the most fickle and unreliable. The three other parts (place, practice, equipment) are all completely dependent upon it.

As with so many things, human failings can seriously interfere with safety:

- Most new civilian target shooters in the UK will not have had the benefit of any previous formal training in the use and handling of firearms. What they probably will have had though, is years of watching films and television programmes (or of playing computer games) involving the use of guns. As experienced shooters know, much of this stuff is complete nonsense; entertaining maybe, but extremely dangerous if translated into real life. Without even realising it, anyone new to shooting is likely to have absorbed some bad habits even before handling a firearm for the first time.

- Before becoming a full member of a Home Office approved club, a new shooter must serve a probationary period of at least three months, during which time they must attend and shoot regularly. The probationary member must be given a course in the safe use and handling of firearms on a one-to-one basis by someone who is either a full member of the club or who is a qualified coach. Until they have completed the course, he or she must be supervised at all times when in possession of firearms or ammunition.

- Everybody, no matter what age or amount of experience, is capable of getting things dangerously wrong. All it takes is a moment of inattention for something disastrous to happen. On the "advanced" NRA courses - RCO, RSO, Club Instructor, etc. – we often ask the group if there is anyone in the room who can honestly say that they have never inadvertently done anything that either was dangerous, or might have become dangerous if it hadn't been stopped in time. Of the hundreds of people who have been asked this question, only a handful have claimed never to have done anything even vaguely dangerous. The worrying thing about *that* is that they almost certainly have done something, but won't admit it. Or worse, don't even realise that what they were doing was dangerous.

- The true measure of a person's competence with firearms is only partially based on their level of marksmanship skills. The level of control and precision of their handling of firearms under all circumstances, not just on the range, is a far better indicator of their abilities and attitude than their ability to hit the centre of the target with every shot. Of course, a *good* standard of marksmanship is necessary, if only because it is essential that the bullet hits the target every time rather than going anywhere else. However, it is perfectly possible for someone to be an excellent shot but appallingly dangerous because of poor attitude, or lack of ability to handle a firearm safely.

There is little in this manual about shooting technique. As long as whatever is happening conforms to good practice, from the point of view of the RSO the only thing that *really* matters is that everything is safe.

Shooting is an activity which can be enjoyed by practically everybody, even those who are quite severely physically disabled. Regardless of the type and restrictiveness of the disability there is almost always a way in which shooting can be enabled. It sometimes takes a bit of imagination and inventiveness to come up with a suitable technique, and it might involve the use of special or adapted equipment, but ways can almost always be found. Provided the gun can be held steady whilst being aimed and fired, if necessary everything else can be done by a helper. The only requirement is that the usual Safety Rules must be complied with in all ways, regardless of how much we want to enable someone to shoot. If it is necessary for someone to assist a disabled shooter in handling a firearm, remember that the helper must be fully qualified as a shooter and that they must be able to legally handle the firearm.

There are three human failings that the RSO should be very alert to:

- **Boredom**

  As mentioned earlier, shooting is not generally a spectator sport. If you doubt this, watch the people who aren't shooting. They're probably not watching other people shoot, they're doing their own thing and not taking any notice of anything else. They need to be managed properly, if necessary not allowed on the range until it is their turn to shoot. At the very least they can be a distraction, at worst a danger.

  If a *shooter* is bored, perhaps just firing off whatever ammunition they have left as fast as they can without any great purpose or concentration, *the time has probably come for them to stop shooting for the day.*

- **Complacency**

  "It can't happen here."

  "It won't happen to me."

  Well, "it" can. And with that attitude, sooner or later, it probably will!

- **Overconfidence**

  Anybody who thinks they know everything there is to know about shooting, and that they are immune from potential disasters of their own making, is deluded. Those who possess a degree of wisdom and humility realise that it is one of those things where, regardless of experience, any of us have the potential do something embarrassing and/or dangerous at any time.

  Boredom, complacency and overconfidence are probably responsible for more damage and problems than all other factors combined. Needless to say, anybody who is exhibiting signs of their attention having seriously wandered off elsewhere should be asked to leave the range, if for no other reason than they will probably distract other shooters. Any irresponsible behaviour or attitude needs to be dealt with.

Strange or Unusual Behaviour

One of the duties of the RSO is to be on the lookout for any unusual, unacceptable or out-of-character behaviour exhibited by anyone on the range, whether they are shooting or simply observing. Changes of demeanour or attitude can be obvious or subtle and can be caused by any number of factors; illness, family problems, etc., etc. If for whatever reason there is reason to doubt the wisdom of allowing someone to shoot or even remain on the range, the RSO has a duty – in the over-riding interest of safety – to ensure that the situation is dealt with immediately. The use of tact and good humour can be of immense value in such circumstances.

Drink and Drugs

- ***Alcohol***

  First the easy one: drink. ***Alcohol is incompatible with shooting***. No arguments, it's just a fact! So what do you do if somebody, even slightly the worse for wear for drink, turns up on your range? Well, you obviously wouldn't let them near a firearm, let alone shoot. The only certain way to prevent them causing real danger would be to remove them from the range altogether. But then what? Are they in possession of firearms and ammunition? Are they going to try to drive home?

- ***Illegal Drugs***

  It should go without saying that ***the use of illegal drugs is incompatible with shooting***. An RSO who has reason to believe that a shooter is using illegal drugs, never mind whether or not they are being discernibly affected by them, should not be allowed on the range let alone allowed to shoot. The legal aspects of the situation are not within the scope of this manual, but at the very least the matter needs to be dealt with urgently and robustly as a membership issue.

- ***Non-prescription Drugs***

  Of the many reasons that people take non-prescription drugs, there are two in particular which stand out as being of relevance to shooting: hay fever and insect bites. Sufferers of both may well use antihistamines. Antihistamines are renowned for causing drowsiness, although they effect different people in different ways. Many other over-the-counter treatments (cough medicines for example) may cause drowsiness. If the leaflet warns of drowsiness, or that it is recommended that the user does not operate machinery, etc., **take the warning seriously.**

- ***Prescription Drugs***

  The caveats with regard to non-prescription drugs all apply to prescription drugs as well. In cases where there is any doubt at all as to the compatibility of the drug with shooting the advice of the doctor should be sought and adhered to.

  Regarding prescription drugs; it is quite possible that, in the case of certain illnesses, a problem with the ability of a person to shoot safely may well occur as the result of that person *not* taking a drug which they have been prescribed.

THE RANGE SAFETY OFFICER

What's the difference between a Range **Conducting** Officer and a Range **Safety** Officer? Well, in practical terms of making sure that the range is being run safely, absolutely nothing. The only real difference lies in the fact that a Range Conducting Officer has undergone training which includes procedures on military ranges and is authorised to run a UK MoD range when it is being used by a civilian club. Until 2018, the RCO course was the only range management qualification offered by the NRA. The new Range Safety Officer qualification is limited to civilian ranges, and has been introduced to provide training for the multitude of clubs which operate only on private ranges and, therefore, do not require Range *Conducting* Officers.

The RSO course also functions as a foundation course for those who need to gain the full RCO qualification. The more people trained in the safe use of ranges, the better, and it is hoped that a great many club shooters will gain the RSO qualification.

When a civilian club uses an MoD range, the standards of safety required are no lower than those of a military unit when it uses the same range. It should go without saying that if a club is using a private range the safety standards should be just as high. For a civilian club to operate to the same levels of safety as a military unit is quite a tall order; to start with the military will have uniformly high standards of training and supervision. They will be using standard firearms, standard ammunition, standard procedures, and be operating on ranges which are subject to stringent inspection and regular maintenance. For a club to achieve a level of safety equal to that of the military is difficult, but it must be achieved and never allowed to drop.

In contrast, civilian clubs have no such standardisation. Their members will have varying degrees of training and experience, and are likely to turn up with an amazing variety of firearms and ammunition.

Civilian ranges come in all different shapes and sizes. However, from the shortest air rifle range to the longest full-bore rifle range they all possess some common features:

- They all have a firing point, target area, and somewhere for projectiles to come to a stop without escaping from the range.
- Ranges can be entirely enclosed, partially enclosed, or completely open.
- Distances can range from a few feet to thousands of yards.
- There are all sorts of different designs and materials suitable for whatever type of shooting takes place on that range but essentially they all do the same thing. It’s really just a matter of scale.

RANGE DESIGN

Until a few years ago all UK ranges had to be inspected and certified by the Ministry of Defence. Now, the owners/operators are responsible for certifying their own ranges. The MoD possessed the experience and technical knowledge to be able to objectively assess the condition of a range and issue a safety certificate.

Nobody expects RSOs to be experts on range design and construction, but they should possess an awareness of what can go wrong when it comes to weaknesses in the fabric of the range which may have been caused by age, damage, or poor maintenance.

Although most shooters are very knowledgeable some have absolutely no idea as to how far the bullet that they are launching can actually travel, and are quite convinced that the danger area of an outdoor range is sufficiently large for any bullet that they fire to land within it. **They are wrong!**

- A .308 Winchester bullet fired at an angle of about 30 degrees will travel about two and a half miles (4 km). If this happens on a 600m gallery range, the bullet will travel over the butts and continue on to travel approximately a mile beyond the end of the danger area.

- Many handgun calibres (9mm Luger, .357 Magnum etc.) can be expected to travel approximately one mile, as can .22 LR.

No matter how well a range is designed or built, its safe use depends upon people. A range is only as safe as the least safe person associated with its use, and this isn't necessarily confined to those *shooting* on it.

- Failure to carry out checks on the fabric of the range for example, or not spotting recent damage, are just a couple of the things that could lead to a degradation in the ability of the range to contain a bullet within it.

- Not only do we need to make sure that the range operates safely whilst shooting is taking place, we also need to ensure that it is safe before shooting can start. On MoD ranges this is known as the Clear Range Procedure; a process designed to ensure that the danger area is clear before commencing, and not compromised during shooting. Private ranges should have similar procedures for which the RSO will be responsible.

BEING A RANGE SAFETY OFFICER

When a civilian club hires a military range it has to abide by the rules as laid down by the owners, the Ministry of Defence. Amongst other things, the club can only operate on the range if it is being run by a properly qualified Range Conducting Officer, the duties, responsibilities, and limitations of whom are clearly defined by the MoD. In the same way, it is the prerogative of the owners of a private range to define the role of a qualified Range *Safety* Officer. **The NRA will provide the training for RSOs, but it is up to the clubs and range operators to decide exactly how they want to use them.**

The *envisaged* role of the Range Safety Officer, in all of this, is rather more than that of simply supervising a shooting session, although that is the most obvious aspect of the job. The role includes endlessly promoting a culture of safety, and showing by example how things should be done properly and of ensuring that everybody else behaves equally responsibly. **The primary duty of an RSO is to run, in all respects, a safe range.**

As is the case with so many things when doing them for the first time, running a range can seem daunting to start with.

At the simplest level, there might not be not much more to it than opening up the range and letting a group of experienced and trustworthy shooters carry on in their own time – with, of course, all due regards to safety. At the other end of the spectrum, you might find yourself organising and/or running a large and complex series of competitions such as those held at Bisley in June and July every year.

There are many things that can be done to minimise the workload and make the whole experience stress-free:

- Thorough preparation.
- Making sure that all range equipment is in working order.
- Making sure that everybody on the range knows what is happening and what they have to do is another way of making life easier for yourself, rather than having to constantly repeat and clarify instructions. The necessity of being able to give effective briefings, by the most appropriate methods, is covered later.

If you are going to be operating on an unfamiliar range, try to visit it before the day of the shoot to familiarise yourself with the place. If that's not possible, at least get there early and, in all cases make sure that you have researched the range regulations well in advance and have incorporated any information necessary into whatever briefing that you will be giving to the shooters. Range regulations and procedures can vary quite markedly from one range to another, and you need to ensure that you and your shooters are operating within them, even if they might seem distinctly strange. When in Rome…

Delegation is an important way of spreading the workload. The RSO, if not careful, can find themselves doing far more than they should be doing, whilst others don't seem to be doing anything useful at all. There is no virtue in doing everything yourself. The RSO's job is primarily about running a safe range, and you can't do that if your attention is elsewhere.

Everybody on the range needs to know what it is that they are supposed to be doing, and to do it. It is up to the RSO to allocate duties effectively. Appoint assistants; you may want to give them the title of *Safety Supervisors*. The last thing that you want, as the RSO, is to be drawn into dealing personally

with one particular shooter who is having problems or who needs close supervision for some reason. You need to keep an over-all view of proceedings, and you can't do that if your attention has been distracted. There shouldn't be any need for you to be a one-man-band. Use helpers.

USEFUL EQUIPMENT

There is a small but important amount of equipment that it is very advisable, if not in all cases essential, for an RSO to have in their possession:

- Hearing protection is essential for everybody within hearing-damaging distance of gun fire. Just what that distance is can be a moot point, but it may well be specified in club or range regulations. For the RSO, the use of electronic ear defenders is *highly* advisable given that the job entails recognising and reacting to anything that is, or might become, dangerous. You need all your wits and senses operating at full capacity. To have your hearing unnecessarily impaired isn't a good idea.

- A small torch. The lighting at the firing point end of some indoor ranges leaves a lot to be desired and trying to visually check that a chamber is empty on some guns is difficult if not impossible without the aid of a torch. This is especially so with some .22 semi-automatics, and even *more* especially so when the manufacturer of the ammunition being used has chosen to make the cartridges black.

- A tabard of some colour – make yourself obvious! Unless you are RSOing a very small group of people, all of whom know who you are, it is very advisable to wear a tabard of some colour which distinguishes your role from that of anyone else on the range. It may well be that the range or club rules say that you *must* wear one.

Some random notes on the handling of self-loading rifles and long barrelled handguns.

Whilst this little section does not give detailed handling instructions for these firearms, there are a few things about them that the RSO needs to be particularly aware of.

Semi-automatic or self-loading rifles

- Many shooters have developed the bad habit of gently controlling the bolt forward when making ready, rather than simply releasing it and allowing it to fly forward unimpeded. This is bad practice and can often lead to miss-fed rounds.

- When unloading a semi-auto pistol or rifle remove the magazine *before* operating the slide or bolt.

Long barrelled handguns

In 1997 firearms below a certain length, which up to that time had been legal under Section 1 of the 1968 Firearms Act, were reclassified as prohibited weapons. Effectively this was a ban on the civilian ownership of handguns, other than muzzle loaders, in England, Scotland and Wales. It is legal to own long barrelled revolvers and long barrelled semi-automatic .22 pistols, but much of the expertise which had evolved over the previous decades has disappeared. Many owners are self-taught and it is very likely that many RSOs will not have had any training or experience in the use and handling of handguns. The problem is made worse by the fact that training someone is made more difficult by the fact that clubs cannot own long barrelled handguns **and nobody other than the owner is allowed to handle one**.

A demonstration of correct grip and control of a long barrelled revolver. Even if the RSO is not a handgun shooter, they need to be alert to the fact that it is much more likely that an inexperienced or careless shooter will fail to properly control the direction in which the gun is pointing.

BRIEFINGS

The main responsibility of an RSO is to run a safe range, and a major part of achieving this is to make sure that everybody is fully briefed about everything relevant to their safe use of the range. Whether a briefing is given verbally, or in printed or email form, or a combination, it is essential that everybody should know what is happening and what is required of them.

Briefings should be brief, or at least take no longer than is necessary to be effective in delivering whatever information is pertinent to the safe and efficient running of the day. **It's a good idea to give everybody a written version of the briefing as well. This can be handed out on the day or sent as an email.**

Briefings are given in order to impart *important* information:

- If they fail to achieve this there isn't any point in giving them other than as a box ticking exercise, and that just isn't good enough. They might not be the most riveting things on Earth, but they are necessary and whoever is delivering them must try to grab and hold the attention of those at whom they are directed.
- Some people seem to be under the misimpression that a range briefing must be delivered in a clipped, stern, dictatorial fashion. This type of person will probably spend the rest of the day running the range in the same style, imagining that they are maintaining safety and upholding standards. In fact, the opposite is true as **any unnecessary tension or antagonism on the range makes accidents more likely, not less.**
- Some others make absolutely no effort to inject any life into their briefings and are merely reciting a script in the most excruciatingly monotonous manner, with little or no attempt at genuine engagement with anybody.

Having mentioned a couple of extreme examples of how *not* to do it, what *is* the most effective way of giving a briefing? That depends on several factors, but there is no single "best way". In the case of a verbal briefing, it is very much dependent upon the personality and communication skills of the person delivering it.

Styles vary; for example, a natural extrovert may communicate very effectively by standing up at the front of a group and speaking confidently with lots of eye contact and an easy ability to "connect" with the audience. On the other hand somebody less outgoing can be just as effective, but might prefer to use a different style; perhaps being seated with the group gathered closely around. It doesn't matter what style is used, provided the briefing is effective.

The measure of effectiveness is the degree to which the information is *understood and remembered* by the recipients. Style and content should be appropriate to the circumstances. Is the briefing being given to an individual or a group? Small group or large group? Full members, probationary members, members of a visiting club, guests, or a mixture of the above? Is the session taking place on the home range or somewhere less familiar, perhaps Bisley? Are the shoots going to be simple untimed target practice, or something more complicated? Competitions? Etc., etc…

Any of the above factors, and many more, will dictate the content of the briefing and the style and complexity of the delivery.

- It is up to the person delivering it to judge the most appropriate way of doing it, but the deciding factor must always be the necessity of ensuring that everybody is certain of what is happening, or of what is required of them.

Some things to consider when preparing and delivering a briefing

This list is not exhaustive and not everything is applicable to all briefings, but it should cover just about all the factors that should be relevant to most briefings. Thorough preparation is essential. It may well be that the RSO giving the briefing is the person who will be organising the day's events, in which case they should be thoroughly familiar with whatever needs to be included in the briefing.

- **Preparation:** how much required and of what?
- **Equipment needed, if any:** laptop, projector, screen and PowerPoint, whiteboard, marker pens, etc.
- **How many people attending?**
- **Where is the best place to deliver it?**

  Club room, classroom, on the range, outside the range, etc.

  Seated, standing, enough room, etc.

  External factors: Noise, weather, people who are not involved, etc.

Style: Some observations based on student performance during NRA training courses:

- Genuine *communication* with the audience is essential. People don't respond well to being talked *at.* It is far better to talk *to* or *with* them in a conversational style. Granted, it is a fairly one-sided conversation and it all has to be controlled and kept to the point. With a large group it might be more of a lecture but, whatever the circumstances, keep it as interesting and engaging as possible.

- Unless the briefing is very short, and you can rely on your memory, you will probably need to refer to **notes.** Anyone trying to give a briefing by reading sentence after sentence of semi-legible scribbled notes from a piece of crumpled paper held at waist height, with their head bowed, doesn't look good or inspire confidence.

- It is a lot easier, and looks and sounds much more "professional," if a clipboard is used, with boldly written bullet points. This works far better than the scrap of paper method, especially if the board is held well away from the body at slightly above chest height, and the head needs to be only slightly raised to re-establish eye contact with the group every few seconds.

- It is a complete waste of time to give a briefing if nobody can hear it. Speech must be loud enough for the circumstances, and clear enough all the time.

- If speaking to a large group in a room with terrible acoustics, it may be almost impossible for the people at the back to hear. Remember to take this into account when planning the briefing. Amplification, or maybe a different venue might be necessary.

- Don't forget to invite questions at the end of the session. Even if someone asks something that you consider to be particularly daft, listen with patience and answer without any hint of sarcasm or annoyance. There's a good chance that if one person is asking a question, there may be others who are equally unsure but don't want to admit it. Question yourself as to whether you covered the point adequately or if you need to re-explain it.

Many clubs produce a briefing template which is tailored to their specific circumstances. The example on the following page is adapted from the specimen format in the RCO Manual.

****

FIRERS' BRIEF

Range ..... Date..... Start & finish times.....

INTRODUCTION

GENERAL Anything relevant. Car parking, facilities, times, any instructions as to when firearms have to be cased, etc.

COURSE OF FIRE Details of the shooting programme for the day; targets, scoring,timing

DUTIES Who is doing what?

ACCESS Any necessary directions regarding routes on and off range or butts, etc.

ON THE RANGE

a. On arrival at any firing point you may not place ANY kit in the firing point until the RSO gives permission.

b. Bolts will not be inserted, or breech flags removed until you are on the firing point.

c. You must not load or fire until told to do so by the RSO.

d. You are reminded to hold your rifles horizontally when loading, unloading, dealing with misfires and having the rifle inspected. There must be no deliberate cross firing.

e. If you have a misfire do not open the bolt for at least 30 seconds. Keep the rifle pointing towards the target and raise your hand to attract the RSO's attention.

f. Everyone MUST wear effective ear protection both ON and NEAR the firing point and it is strongly recommended in the butts.

EMERGENCY STOP If firing has to stop in an emergency the RSO will shout: **"STOP! STOP! STOP!"** You must then **IMMEDIATELY** cease firing, keep the rifle pointed at the target with the finger clear of the trigger and await further instructions from the RSO. **ANYBODY** can shout **"STOP! STOP! STOP!"** in an emergency, the RSO will then give instructions to the shooters.

AIMING OR 'DRY FIRING' No one may aim a rifle, look through the sights, remove a breech flag or insert a bolt unless you are on the firing point with the RSO's permission. This is most important.

END OF DETAIL The firer (unless a new shooter under supervision) has prime responsibility for making sure that their firearm is unloaded, BUT it must be double checked as clear by another person. Ensure that all litter and empty cases are removed from the firing point.

****

RANGE COMMANDS

Range commands are the verbal instructions given when controlling all aspects of a shoot.

- They must be clear, concise, unambiguous, and **LOUD ENOUGH.**
- The way in which the commands are given should be appropriate to the type of shooting which is taking place and the type of range which is being used.

For example, on a range where the firers do not have to move forward of the firing point at any time in order to score or patch out, and where informal untimed target practice is taking place, range commands may simply consist of making sure that the shooters comply with regulations regarding hearing and sight protection, et cetera, and that they are in no doubt as to what they should be doing and when they should be doing it. In these circumstances the range commands could be delivered quite differently to if they were being given during a formal competition, or on a range where firearms are left on the firing point when people are required to walk forward to the targets to score and patch.

- **Remember, it is not only the shooters who have to know what it is that they must or must not do, but also any spectators or people who are waiting to shoot.**

Regardless of the way in which a range is being run, there must never be any impression given that the standards of safety required have been in any way relaxed. The atmosphere on a range should be calm and business-like, and it is the job of the RSO to ensure that this is the case.

The RSO must always be in control of *everybody* on the range and should exude an air of calm authority without becoming authoritarian. Too much control on a range can almost be as bad as too little, and serves only to introduce tensions, which can lessen safety rather than enhance it. The benefits of using tact and good humour can never be overemphasised. However, none of this precludes the use of immediate decisive action if needs be.

Standing on a range and issuing range commands isn't something that comes naturally to many people. Like most things it takes practice, especially if the person is not used to talking loudly (shouting if necessary) in public and being the centre of attention. On the RSO course we find that most students, given five or six opportunities to practice, are perfectly competent to give the commands for any type of club shoot. The usual problems that present themselves to start with are a lack of clarity (of both audibility and meaning) and lack of volume. Remember range commands are instructions, not requests. By all means be polite but try to minimise the use of the word “please.”

The job of the RSO is much easier if the firers have been fully briefed as to *exactly* what is required of them *before* they go onto the firing point. Range commands should be kept short and simple and, as far as possible, use standard wording to avoid any misunderstanding. For example, shooters expect the term "carry on" to mean one thing only: start shooting. Using the term at any point during the

range commands other than when you want them to start shooting is likely to lead to misunderstandings.

Formal competitions will have their own sequence of events and range commands. All firers must know the course of fire, the sequence of events and what range commands they will expect to hear. The range commands are contained in the competition rules which should be obtained and studied before the range practice.

Explanation before each shoot

Range commands are often specific to a particular competition. It is important to understand these differences, why they are used, and how to use them in the proper context. The RSO should be aware of this and ***give the correct commands that the firers expect to hear***. This is essential to the running of a safe and efficient shooting practice.

The length and complexity of the instructions for each shoot can vary hugely. The short verbal explanation / reminder before each shoot constitutes a small briefing in its own right. Things run much more smoothly if every shooter understands exactly what they need to do, and what range commands to expect, before they step onto the firing point.

Remember to instruct the shooters (and everybody else) to put on ear and eye protection before giving any command to handle the firearms.

Some common commands and their meanings

- **"With a magazine of x rounds load"** Insert a magazine of x rounds
- **"Make ready"** Chamber the first round
- **"Is anybody not ready?** Self-explanatory
- **"Carry on"** You may start shooting
- **"Watch and shoot," "Stand-by," etc** Shoot when the target appears
- **" Has anybody NOT finished"** Self-explanatory
- **"Unload and show clear"** Self-explanatory
- **"The line is clear, forward and check targets"** (or words to the effect)

On a range where it is necessary for anybody to go forward to check targets, or for any other reason, it is absolutely essential that all firearms have been proved to be clear and that they have been placed down (or placed in racks or cased, if required by range regulations) and that nobody is in a position to handle firearms, before anybody moves forward of the firing point.

Primarily, range commands are given to the *firers* in order to control the conduct of shooting. In reality, the range commands need to be given in such a way that everybody on the range is aware of what is happening at all times.

HAZARD AWARENESS AND ACTION IN THE EVENT OF AN INCIDENT OR EMERGENCY

Imagine for a moment that you are running a range; the session is in full swing and you really don't think that you have very much to do other than stand at the back whilst the shoot takes place. You've done it all a hundred times before, but nothing out of the ordinary has ever happened. But this time something does happen. It could be anything; somebody emerges from the bushes halfway down the range and walks right in front of the firers; one of the firers collapses; a gun explodes; or anything else that you can think of (or unthinkable) suddenly happens without any warning whatsoever:

- First, in order to do something about whatever it is that happened, or is happening, you must see it, or at least have it drawn to your attention.
- Second, you must **instantly react** to it. The fact that you are tired, and possibly have been lulled into a false sense of security because nothing untoward has ever happened before, is not a good reason for not noticing, or reacting to, some potentially lethal incident.

The number one priority and responsibility for *everybody* on a range is safety. Where safety has been compromised, as in the examples above, it must be recovered as quickly as possible. When shooting is taking place there is, of course, an extra element of danger that needs to be dealt with quickly. The best way of dealing initially with any of these occurrences is to instantly freeze the situation. The accepted form of words is "**STOP, STOP, STOP**", the level of urgency appropriate to the situation being conveyed by the tone of voice.

It is very important that the shooters understand that "STOP, STOP, STOP" is a command, not a request, and it means exactly what it says! Do not do *anything* else until told to by the RSO!

In the case of a hazard which presents itself in front of the shooters, for example somebody walking across the range, the safest and quickest course of action would be to **order the shooters to put their firearms down immediately and step back from them.** In this instance it would be much more dangerous to unload the guns than to simply put them down regardless of their condition.

If the occurrence isn't quite as dramatic, with no immediate danger, the best course of action would be **to instruct the shooters to unload and show clear**. The RSO needs to be able to make a quick decision as to the most appropriate action and give the shooters clear instructions.

Sometimes the RSO might not be the first person to see something happening. *Anybody* who sees anything that they consider to be an immediate danger not only can, but *must* give the "STOP, STOP, STOP" command. The RSO will immediately take over and give whatever instructions are necessary.

What, for example, about a shooter who has collapsed on the firing point? The best response would be to ***immediately* shout "STOP, STOP, STOP",** and instruct the other shooters to put their firearms down (without unloading or proving that they are clear at this stage) and step away from them. Separate the firearms from the firers and deal with the casualty. But what about the casualty's firearm? Where is it? What condition is it in? If it's on the floor, or the table, where is it pointing? There aren't really any hard and fast rules about how to deal with any of this sort of thing, although there are certain guidelines. Every situation is different. The over-riding consideration is safety and the RSO just has to use judgment and common sense.

Whoever is running the range needs to be constantly aware of potential danger. With any luck – and a huge amount of preparation – you will go through an entire lifetime of shooting without any dramas occurring, but sometimes dramas do occur and when they do you have to be ready for them. The key to dealing with these situations is to have some sort of very basic, very adaptable, plan as to what you are going to do when things go wrong.

To sum up: In the event of an incident (real or suspected), the first consideration is safety.

If something dangerous happens, or is about to happen

"STOP, STOP, STOP"

"guns down and step back from the firing point"

OR

"unload and show clear"

THEN

deal with the situation

Hindsight is a wonderful thing, as the saying goes. Almost invariably when a disaster occurs, be it minor or massive, there will be a history of events leading up to it. Very rarely do things happen in complete isolation. One aspect of safety-consciousness is the ability to recognise the potential of seemingly inconsequential and isolated events becoming a chain (or even several chains) which can link together and lead inexorably to whatever the consequence happens to be.

Take, for example, the case of a rifle which blew up, annihilating itself and badly injuring the firer and the person next to him in the process.

- The rifle is (was) a foreign breechloader of First World War vintage, and wartime manufacture.
- It was sold into civilian ownership, and during its one hundred, or so, years of existence had several owners, at least one of whom indulged in a significant amount of amateur gunsmithing.
- Apart from cleaning, no proper checks or preventative maintenance had been carried out on the gun for decades.
- Its final owner used hand-loaded ammunition, and wasn't as fastidious as he could have been when it came to quality control.
- Although, of course, it wasn't possible to test the actual cartridge involved in the gun's demise, examination of the remaining unfired rounds from the same batch revealed them to be of variable quality, and on the 'hot' end of acceptable.

An ounce of common sense should have told the shooter that using the gun in this way was not going to end happily. If nothing else, a sense of self-preservation should have been ringing alarm bells. Did the shooter consider:

- the older, inherently weak design. Bolt action, with open top to the receiver through which the integral magazine was charged by the use disposable strip-clips?
- Wartime production possibly meant that the weapon was of lower quality than normal.
- Various components possibly weakened by amateur tinkering
- No checks or maintenance. Was there a headspace problem? Was it even still in proof?
- Hand-loaded ammunition of poor quality and too high pressure

Thousands of shooters regularly use old firearms with absolutely no problems whatsoever. As long as these guns are properly maintained and known – not just trusted – to be in serviceable condition and in proof, they are just as reliable as their modern descendants, ***provided they are treated with respect and are not pushed beyond their limits***. Just because a gun is chambered for a particular calibre does not mean that it is necessarily a good idea to use *any* modern cartridge of that (or supposed equivalent) calibre. It is perfectly possible that some examples of modern ammunition may exceed the pressure for which the gun was proofed.

THE LAW

Range safety is often thought of purely in terms of the prevention of physical damage or injury, but another aspect of range safety is making sure that nobody breaks the law.

Firearms legislation in the UK is complex, confusing, subject to relatively frequent "tweaking", and is not particularly well understood by just about anybody who isn't a genuine legal expert. Much of it is open to interpretation, and in many instances it has taken a court decision to provide clarification. It is an area of the law which is easily fallen foul of, often as a result of ignorance, stupidity or complacency rather than by intention. **The penalties for committing offences are severe.**

This manual is not a legal textbook and there are far better places to find detailed information but there are one or two points which are worth mentioning, if for no other reason than the fact that few people seem to be aware of them.

The best source of information regarding the legal aspects of civilian ownership and use of firearms in the UK is the *Home Office Guide on Firearms Licensing Law* which can be found online.

Chapter 18 is of particular relevance to shooting clubs.

This chapter details:

i. procedures for club approval;

ii. Issues such as the use of ranges, security of firearms and good practice in club administration;

iii. Information about the renewal of certificates, club inspections;

iv. The requirement of the police to maintain a register of clubs within their force area;

v. how the Firearms Acts relate to cadet corps and school target shooting clubs.

Use of Club and Privately Owned Firearms

A particular aspect of the law which is not particularly well understood and which causes much confusion has to do with the types of firearms that can be owned by a Home Office approved club, as opposed to the greater number of types that can be owned by an individual shooter.

The following short extracts are taken from the *Home Office Guide on Firearms Licensing Law*:

> *18.3. Members of a rifle club, miniature rifle club or muzzle-loading pistol club approved by the Secretary of State or the Scottish Ministers may, without holding firearm certificates, have in their possession firearms and ammunition when engaged as members of the club in, or in connection with, target shooting (section 15(1) of the 1988 Act as amended by section 45 of the 1997 Act). It should be noted that section 15(1) does not stipulate that the firearms must be club firearms. A member of an approved club may temporarily possess a firearm solely in connection with target shooting on the club's range, or other ranges which it may use. However, a person cannot possess a firearm under this exemption if it is a class of firearm for which the club is not approved. It should also be noted that section 15(1) of the 1988 Act, as amended, does not apply to the use of long barrelled pistols or section 1 shotguns used for target*

shooting, as it only allows possession of rifles or muzzle-loading pistols at suitably approved clubs. Accordingly, club approval cannot be extended to cover the use of these firearms.

18.11. Club approval by the Secretary of State or the Scottish Ministers will only cover target shooting with the categories of firearm listed below:

(a) Full-bore rifles, including pistol calibre "gallery rifles";

(b) Small-bore rifles; and

(c) Muzzle-loading pistols.

A Home Office Approved Club can be authorised to possess any or all of three categories of Section 1 firearm: full-bore rifles, small-bore rifles, and muzzle loading pistols. Any member of the club, even if they do not possess a personal firearms certificate, can use these firearms when engaged in, or in connection with, target shooting.

The right to use club owned firearms also extends to the borrowing, by club members, of firearms owned by other members, *provided they are of the three types mentioned above, and for which the club is actually approved*, and that they are used in connection with club activities.

So far, so good; but now it gets confusing. The concession of being allowed to borrow someone else's firearm only applies to full-bore rifles, small-bore rifles, and muzzle-loaded pistols. It does not apply to any firearms which may be perfectly legally held on a personal firearm certificate, and which may be used on club ranges, but which are not of those three types. ***What this amounts to is that the only person who legally can handle a Section 1 shotgun, or a long barrelled pistol or revolver, is a person on whose certificate that specific firearm is itemised.*** (A Section 1 shotgun is a pump action or self-loading shotgun with a magazine capacity of three or more cartridges).

The confusion continues. As stated above, a club can own muzzle loaded pistols. They are there for the use of club members, and privately owned muzzle loaded pistols can be used by other club members. This is simple enough until we come to the nature of the propellant, or powder, being used.

Gunpowder, or black powder as it is also known, (as distinct from modern nitro, or smokeless, powder) is an *explosive.* Anyone who handles it in its loose form must possess an explosives licence. A modern black powder substitute such as Pyrodex, which possesses similar characteristics, but which is classed as a *propellant*, does not require the possession of an explosives licence. This means that it may be perfectly legal for somebody to borrow a muzzle loaded pistol, but if they did not possess an explosives licence it would not be legal for them to handle loose gunpowder! On the other hand if somebody else, who did possess an explosives licence, were to load the gun and hand it to them in its loaded state, it would be absolutely fine. If Pyrodex was used the problem would not arise, because no licence is needed.

Safe Equipment

SAFE EQUIPMENT

Range equipment and condition are dealt with in detail in the *NRA Range Managers Guide*.

It goes without saying that all equipment used on a range should be in fully serviceable condition, and this applies especially to firearms and ammunition. ***With the exceptions of probationary members under supervision, and participants on properly authorised guest days, the individual shooter is entirely responsible for their own conduct and for the appropriateness, condition, and use of all of their equipment.***

The great majority of shooters are very knowledgeable and are adept at using their own kit. The variety of firearms that can turn up can be mind boggling. The RSO is not likely to be familiar with everything that shooters are using, and is reliant upon everybody knowing what they are doing. However, if any doubt exists about the wisdom of allowing somebody to do something ***don't let them do it!*** Just because somebody owns a particular firearm is absolutely no guarantee that they know how to operate it correctly.

If a firearm malfunctions (anything from a loose scope rail to a cartridge jammed in the chamber), is the owner competent and equipped to recognise and cure the problem? If you are unfamiliar with a firearm that someone is intending to use, get them to show you how it works, at least in so far as the showing clear and load and unload procedures. Even if you don't know how to use it, it will soon become obvious as to whether or not *they* do!

In the case of long range shooting especially, does the shooter understand the sighting system on their firearm and how to adjust elevation and windage?

Ammunition, whether factory or hand-loaded, can be a rich source of dubious entertainment for many reasons. First of all, is its use even allowed on that range? Does it exceed velocity or muzzle energy limits? Is it explicitly named as a prohibited calibre as is, for example, .338 at Bisley? Even if in all other respects it is permitted, is the *bullet* (mono-metallic or tracer, for example) of a type which is prohibited on the range? Is the ammunition of the correct calibre and type for the firearm?

Handloaded ammunition can come with a whole new set of problems, as well as those mentioned above. The vast majority of handloaders take great care to manufacture ammunition which is equal to factory quality. However there are more chances for "anomalous" events to occur, for a multitude of reasons, than ever there are with factory rounds.

Firearms should never be used unless they are one hundred percent serviceable.

- Is it in proof?
- Is it undamaged and functioning correctly?
- If it is a model which has been subject to a manufacturers safety recall, has it been correctly modified?
- Anything which could adversely affect its safe use should never be allowed near a firearm. A faulty bipod, or a loose or damaged sound moderator for example, can at the very least cause distraction and at worst be downright dangerous.

Firearms: Checking condition before, during and after use:

- Before use, the bore should be checked to make sure that it is clear of any obstructions. Even a piece of cleaning cloth left in the bore can cause a catastrophic failure of the barrel, or at least cause damage.

- Any oil in the bore or chamber must be removed before firing. Part of the strength of the action is derived from the fact that the cartridge expands when fired to momentarily grip the inside of the chamber wall. This not only provides a gas seal, but also substantially reduces the pressure on the face of the bolt.

- Any oil in the chamber fractionally reduces the dimensions, and also drastically reduces the "grip" of the cartridge against the chamber wall. The effect of all this is to increase pressure to potentially dangerous levels.

HEARING PROTECTION AND SAFETY GLASSES

One of the jobs of the RSO is to make sure that everybody who is shooting, or who is within reasonably close proximity to any shooting, is wearing properly designed hearing protection of some type. Just what that distance is can be a matter of common sense or judgement, or it may be laid down in range regulations.

We strongly recommend that all RSOs should use electronic ear defenders; when running a range you need all your wits and senses about you. Ideally everybody should use them, especially new shooters who are unused to wearing hearing protection and who have a tendency to partially pull conventional non-noise cancelling ear defenders away from their ears in order to hear whatever their instructor is telling them.

The wearing of safety glasses is very often more a personal choice than a laid down requirement, although some clubs do insist upon them. They are of most use with short range shooting where there is a risk of "stuff" splashing back from the backstop or where low velocity ammunition, which has a tendency to bounce back, is being used. Air gun pellets are notorious for coming back, and it can be a good idea to hang a thick blanket behind the target to absorb much of their energy.

Safety glasses have a more wrap-around design than conventional spectacles, giving protection at the sides as well as the front. They also have impact resistant lenses. There are four main reasons why some people don't like wearing them: they can restrict or distort vision, they mist up, they can be uncomfortable, and if worn with ear defenders they can prevent the ear cups from forming a proper seal against the head. Having said all that, the disadvantages pale into insignificance compared with the extreme pain and damage caused by a piece of hot sharp metal piercing the eyeball.

Misfires

As the RSO, it is your decision as to how a shooter deals with a misfire or other gun or ammunition problem:

- If the shooter is competent and the problem is relatively simple, let them deal with it themselves.

- If it is more complex, or requires that you become involved to the extent that it distracts you from your primary job, you will have to manage the situation to ensure that the problem is resolved without detriment to the safety of the range.

- Sometimes a shooter will position themselves almost as if they don't want you to see something that they're doing. That's probably a sign that you need to find out what they're hiding.

- And if you ever see a huddle of shooters around something, that's a definite sign that you need to discover what it is that they all find so fascinating.

- Be nosey; it's your job to know what is going on. Notwithstanding all the stuff about the individual shooter being responsible for their use of the firearm and ammunition, don't be in any doubt about the fact that if something happens on the range during your watch, ***you*** will have questions to answer. You need to know what's going on. You're in charge of the place!

Gun Clicks

A misfire is simply a failure of the gun to fire properly. This can happen as the result of a number of different things, but the situation we're going to look at first is where the gun produces a click rather than the expected bang.

There are, in very broad terms, three reasons why this could happen:

- Empty chamber
- Ammunition problem
- Gun problem

Until we've opened the breech there is no way to tell which one applies.

Before opening the breech, we need to make sure that the gun remains pointed in a safe direction (the target) for long enough - thirty seconds - to ensure that if it should fire of its own accord as the result of a fizzing chemical hang-fire it will come as one heck of a surprise, but the bullet will go where it is supposed to. This highly unusual event is incredibly rare with modern ammunition.

Having waited thirty seconds, we can now open the action. With a bolt action, rather than gripping the bolt in the normal way, it is best to lift it from the front with the palm open and the hand flat. If the rifle was to fire the unlocked bolt would be blown back, away from the hand, rather than directly into the palm. Any other type of action should be opened as safely as possible.

Having opened the action, we can investigate why it didn't fire.

Scenario no.1

- Empty chamber.

Solution self-explanatory. Reload, carry on. Perhaps the cartridge wasn't seated properly in the magazine, the magazine might not have been fully inserted, or the bolt wasn't pulled back far enough to pick up the round and push it forward.

Scenario no.2

- Ammunition problem.

When examined the primer appears to have been properly struck, or there is evidence of some other problem, such as a deeply set primer or even a primer which has been inserted sideways or upside down. Believe it or not, such things have been known.

Remedy: Reload, try again with a fresh cartridge.

NOTE Even if the cartridge appears to be in perfect condition (apart from the fact that it has been struck) do not try to fire it again. The cap is soft and is meant to deform when struck. If it fires on a second attempt there is an outside chance that it might rupture allowing high pressure gas to be blown back through the bolt and receiver. It is the responsibility of the owner of the cartridge to dispose of it safely and legally.

Scenario no.3

- Gun problem.

When examined, the cartridge appears to be in good condition. The primer is set at the correct depth, but it has either not been struck, or it shows evidence of having been struck very lightly.

Of the three scenarios, this is potentially by far and away the most dangerous. Why has it failed to fire? Was the pin or striker prevented from moving fast enough or far enough by some obstruction? It's not a common occurrence, but even a very small piece of grit or metal can be sufficient to impede the firing pin or striker mechanism in some rifles. Unless there is some glaringly obvious easily fixed problem, the gun should come out of service until it has been properly checked and corrected. There is a thin line between a gun that doesn't go off when it should, and a gun that does go off when it shouldn't.

It was earlier mentioned that the bolt should be opened by lifting from the front, with the palm flat, so that the fingers are not curled around the bolt handle. Why is this so important, given that a genuine hang-fire is so unlikely? After all, we've waited thirty seconds, and the chances of a hang-fire happening at the exact moment that the bolt is opened are infinitesimally small. But, remember, at this stage we still don't know why the gun didn't fire. If it was a gun problem, with a hung-up firing pin, there is a possibility that when the bolt is opened the pin would be released. Under those circumstances you could wait thirty seconds, minutes, or hours; it would make no difference. The gun would fire when the bolt was opened.

Phuts and pops

The Problem

The cartridge has fired but, for whatever reason, has produced much lower noise or recoil than expected. ***The initial reaction should be to stop, and keep the gun pointed at the target for at least thirty seconds.*** This time, something has actually fired; maybe just the primer, with the rest of the powder just waiting to follow. In other words, there is a very real possibility of a hang-fire.

Perhaps there is no powder, or a very much reduced amount. Maybe it has been contaminated with oil, or maybe just degraded for some reason.

These can be considered to be other variations of misfires, and certainly represent a step up in the complexity of how they should be dealt with in comparison to the simple "click" misfire. The first requirement is to recognise that it has happened – perhaps not as easy as it might seem especially when firing a moderated .22 or any other firearm with minimal recoil.

Let's imagine that we have waited the obligatory thirty seconds, and nothing has occurred. We've unloaded the gun. Now what? ***Where's the bullet*****?** Unless you are lucky and there was enough pressure to force the bullet out of the barrel it will be stuck somewhere in the bore. **If the gun is fired without this bullet having been removed, there is a very strong possibility that it will blow up in the firer's face.** There has been at least one genuine case where a shooter has attempted to remove a bullet jammed in a bore by the simple expedient of firing another shot to dislodge it. It didn't end well.

Most ammunition related incidents don't amount to anything too serious, but **they have the potential to cause death or serious injury and have, on occasion, done so.** The pressures involved are phenomenal. 7.62mm NATO produces something in the region of twenty *tons* per square inch, which can propel a bullet about two and a half miles. All this pressure and heat is being generated in a fraction of a second just a few inches in front of the firer's face.

When incidents do occur, modern factory centre-fire ammunition is very rarely to blame. The standards of production are very high. When problems do happen they are far more likely to involve home-loaded cartridges.

The humble little .22 Long Rifle cartridge has its fair share of incidents, not because of any lack of quality, which is equal to that of its full-bore brethren, but probably because of the sheer amount which is used and also because of the vulnerability of the cartridge to damage because of its size.

Another factor contributing to the relative fragility of the .22LR cartridge is the fact that the bullet is thin, very often quite soft, and with some varieties of cartridge protrudes quite markedly from the case mouth. In other words, it is easily damaged.

The .22LR is more prone to out of breech detonations because of the fact that the primer compound is contained within the rim, and is more vulnerable to impact or damage than the primer of a centrefire cartridge.

Extra loud bangs

If for some reason a .22 bullet has become bent or slightly damaged it is perfectly possible that the cartridge will enter the chamber, but not quite to its full length allowing it to protrude from the chamber by a few millimetres. This has occasionally happened with semi auto rifles where the bolt, which does not lock into position but is simply held forward by spring pressure, has not pushed the cartridge fully into the chamber but has gone forward far enough to allow the gun to fire. The result is that the rear of the cartridge, which is not supported by the chamber wall, is blown off. The bang is significantly louder than normal, recoil is non-existent, and the bullet becomes lodged in the barrel because the pressure has largely escaped through the action rather than propelling the bullet forward.

These are just a few examples of things that have happened. The moral of the story is that you must be prepared to react to anything that happens, and prevent it from developing into anything worse. Problems involving ammunition are rarely attributable solely to the ammunition. There is almost always something else such as in the case of a damaged cartridge being loaded, or a previously misfired round being reused. We haven't even touched on the use of ammunition of the wrong calibre….

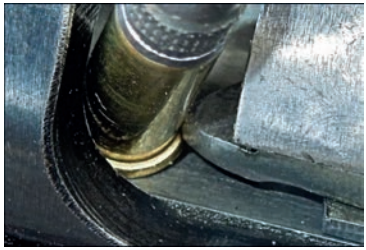
Opening the bolt from the front, making sure that the fingers aren't curled around the handle. If the gun fires when opened, the bolt will be blown away from the hand.

Beware of the ejection port, and of the area directly behind the gun. Dealing with a "click" misfire is a relatively common non-event but it should be taken seriously.

There is potential for a considerable amount of high velocity debris to be blasted out from the receiver. This sequence of pictures is a recreation of an event involving a single shot, left hand action .22 target rifle, and illustrates the sort of thing that can happen in an instant if the shooter isn't concentrating fully on what they are doing.

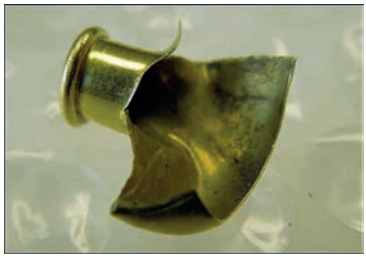
The cartridge is carelessly thrown onto the loading platform and does not line up with the chamber.

As the bolt is pushed forward the cartridge rotates…



…and the rim is crushed by the front of the extractor. The cartridge explodes.

The bullet and the cartridge case are hurled across the range. Luckily there are no injuries.



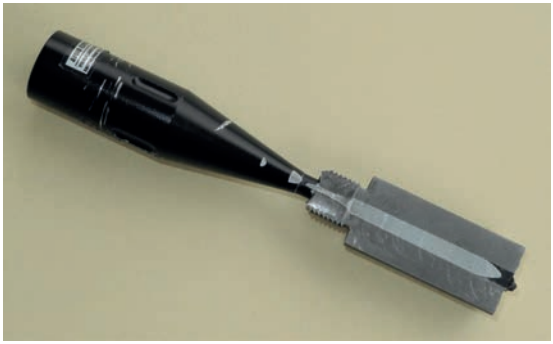
Never trust a breech flag, it certainly doesn't prove that the gun is unloaded. As these pictures show, it can actually hide a cartridge from view. However it does show that the bolt can't be closed

This is a Marlin 1894 .357 Magnum lever action gallery rifle. From this angle it appears to be unloaded. The chamber and magazine follower are clearly visible. But…

…when looked at from a different angle the cartridge nestling on top of the elevator couldn't be more obvious.

It can be almost impossible to see into the chamber on some firearms. In the case of a semi-auto where there is no possibility of removing the bolt and looking directly through the rear of the receiver a torch is a necessity

The .22 rimfire cartridge is extremely vulnerable to damage. Woe betide anybody who tries to fire one in this sort of condition. At best it won't chamber and just be a waste of time, at worst it can result in a detonation when partially chambered or being pushed forward by the bolt.



The mortal remains of a .22 barrel and the laser bore-sighter which the shooter forgot to remove before firing. In this instance no injury or other damage was caused. If this happens with a more powerful calibre there is an extremely high probability that the gun will blow up and cause serious injury

Safe Practice

SAFE PRACTICE

Of the four elements of the NRA Safe Shooting System, *safe (or unsafe) practice* is the one where everything else comes together. It is *everything* that *anybody* does on a range; it covers the uses to which the places and equipment are put. The term "practice" can apply to something very specific, such as a phase of a formal shooting competition or, equally, it can simply be the ways in which things are done.

Club facilities in the UK vary greatly. The physical layout of handgun or galley rifle ranges, especially at the firing point end, can be very different. What might constitute safe practice on one range may not necessarily be the safest way of doing things on another. Rules regarding the procedure when going forward of the firing point, or of where and in what condition firearms should be left when not in immediate use must be appropriate for the facilities and be designed to give the greatest possible degree of safety.

Since the handgun ban in the UK in 1997, before which there was considerably more interaction between clubs, much of the uniformity in the way in which clubs conducted their ranges has disappeared. Notwithstanding the differences in layouts mentioned above, it is desirable that as much consistency as possible is maintained from one club to another, simply to minimise the possibility of ambiguity and misunderstandings which can result in unnecessary danger.

One of the conditions of affiliation to the NRA is that clubs are obliged to use the NRA probationary training course, or a course approved by the NRA, when training new members. This should at least ensure a certain minimum standard of competence and uniformity between clubs.

As mentioned earlier, all clubs should have regulations regarding the use of their range facilities:

- The procedures contained in the rules must represent the best possible practice and must always be complied with by everyone on the range.

- It is the job of the RSO to ensure that this is always the case. Obviously, not everybody (shooters and non-shooters) on a range is going to be an expert on the regulations, so it is the responsibility of the RSO to ensure that they are aware of, and comply with, the rules so far as they are relevant.

- The ability of the RSO to give effective briefings, formal and informal, short or perhaps longer and more detailed, is key to the good running of a range. Things go much better when people understand what it is that they are supposed to be doing, and how they are supposed to be doing it!

- Regardless of what the small-print long-winded version of the regulations say, all clubs should have an easily remembered, simple, and pragmatic set of safety rules which all members should be required to learn and ALWAYS abide by.

- The four Safety Rules shown at the beginning of this handbook are taught to all new NRA members on the Probationers Course. Many clubs have already adopted them verbatim.

When, why, and how to report or make records of an Incident

All clubs and range operators should have some sort of risk assessment/plan covering their immediate action in the event of an incident or emergency. On an MoD range this is called a Range Safety Document. If a club uses a military range it is required to produce an RSD for each session.

If an incident does occur on a range, apart from the obvious things ("Stop, Stop, Stop", first aid, ambulance, etc.) that need to be done at the time, what needs to be done afterwards? If shooting on someone else's range, MoD or Bisley for example, the actions of the club will be determined by the agreement that the club entered into with the range operator. In the case of clubs using Bisley, part of the agreement that they sign up to requires full cooperation with the NRA in the event of an investigation into anything untoward.

On private ranges it is up to the operator to stipulate their own requirements. However, anything involving the Police, or other authorities, will take on a life of its own. In cases of serious injury or death this will inevitably involve a thorough, possibly even criminal, investigation where the activities and procedures of the club will be subject to intense scrutiny.

Let's consider two very similar hypothetical cases. In the first, a .22 rifle which belongs to the person shooting it suffers an out-of-breech explosion which causes minor injury to the right hand side of its owner's head. The owner declines first aid and the offer of a trip to hospital. He retrieves his rifle, and takes himself home suffering more from embarrassment than anything else. Nobody else was injured, the rifle was unscathed and no other damage was caused. No record was made, and that was the end of the matter.

In the second case the details are almost exactly the same, except this time the shooter was using a club .22 rifle. Again, minor injury to the shooter's head. Again, refuses first aid and hospital. And again, crucially, no photographs, no witness statements, no record made. This time, however, there is one big difference. Eight weeks later the shooter goes to his solicitor alleging that he is suffering from severe headaches and tinnitus as the result of the accident. He also alleges that nobody offered him first aid or an ambulance, and that the whole event is now something of a blur given that he was suffering from shock. He is seeking very substantial damages.

The moral of all of this is that it is much better to make more records of an event than may seem necessary at the time, rather than to assume that nothing will come of it and not make any. In the second case above, the club doesn't have a leg to stand on. Even worse, they can be accused of a cover-up rather than just laziness or wishful thinking. As the RSO your main responsibility is to make sure that the range runs safely, but it is also to ensure that if something goes wrong that it is dealt with properly.

But what about the numerous smaller dramas, that don't quite make it into the "crisis" category? What makes something serious enough to take it further than just turning a blind eye, or chalking it up to experience? If you do have doubts as to what to do next, call us; the NRA. We really are here to help.

Usually, of course, things will be dealt with internally. Most clubs will have some sort of investigatory and disciplinary procedures which are perfectly adequate for dealing with unacceptable behaviour. Sanctions ranging from words of advice, a requirement for further training, temporary suspension, all the way to permanent exclusion are available.

If something non gun related happens that doesn't involve serious injury or damage, which is confined to a club's own range, essentially the situation is no different to something happening on any other

sports club premises. There may well be all sorts of insurance and health and safety and liability issues, but these are matters for the club to sort out with the appropriate organisations.

Where it all becomes much more interesting is if something happens where the ramifications extend beyond the premises or where the consequences either *were* serious, or could have been. Things such as bullets escaping from ranges, either as the result of poor handling or deliberate mishandling, or perhaps because of a lack of range maintenance are incredibly dangerous and are completely unacceptable. Every possible precaution must be taken to prevent this sort of thing happening, but if it does occur there is every likelihood that even if there is no damage or injury caused if it comes to notice the range will be closed down in very short order.

Thankfully, intentionally lethal incidents involving the use of legally held firearms are incredibly rare in the UK. But we all know that they have happened, and there is nothing to stop them happening in the future. Without delving deeply into the subject, let's just acknowledge that they can happen, and that if any of us have the slightest genuine inkling that somebody might be potentially heading in that direction, we have an absolute duty to do something about it.

Safe Place

SAFE PLACE

RANGES

Much more information on ranges can be found in the *NRA Range Managers Guide* which is freely available from the NRA or is handed out, together with this manual, to those attending the RSO Course.

The target shooting sports in the United Kingdom have an incredibly good safety record. Having said that, when accidents happen they are far more likely to be the result of human error than of any basic flaws in the design or construction of a well maintained range. The levels of responsibility, self-discipline, and training of those who use the range (including those who are responsible for checking and maintaining it) are key to maintaining a high level of safety. No amount of good design and construction can mitigate the effects of irresponsible behaviour on the part of the users. Without labouring the point, this is what the Safe Shooting System is all about.

No live firing can ever be guaranteed to be completely safe. On all military ranges the highest possible levels of safety are maintained by several different methods:

- Properly defined and applied range danger areas.
- Proper control by the person conducting the shooting practice (the RCO) and, where applicable, extra safety supervisors.
- ***Integrity on the part of the firers*** who are properly trained in the safe handling of the firearms.
- Design aspects of the range, its construction, maintenance and routine inspections.

The use of a *civilian* range must be just as safe, but the regulations may differ from those of a military range. For example, on the NRA ranges at Bisley it is perfectly acceptable for NRA members to use the ranges entirely on their own. This simply would not be allowed on a military range where shooting must be supervised by an RCO. NRA members who have been assessed and certified as competent in the use of the particular class of firearm that they are using may shoot without any supervision at all.

The operators of civilian ranges are free to make their own regulations but, however described, these four points are fundamental to the safe use of any range.

RANGE DANGER AREAS

> **"Those areas of land or water together with a specified volume of air above, within which danger to life, limb or property may be expected to occur, arising from the firing of specified ammunition types."**

The size and shape of the danger area is determined by several factors and is described as a Danger Area Template.

As previously mentioned, one of the most commonly used full-bore calibres for rifle shooting in the United Kingdom is the 7.62 x 51 (.308 Winchester). If fired at an angle of elevation of approximately 30° the bullet will travel about 2 1/2 miles (4000 m). What many people do not realise is that this

distance exceeds (if fired from the 600 yard/metre firing point on a typical U.K. military outdoor range) the furthest extent of the danger area to the tune of about a mile.

The fact that the range has a danger area associated with it is absolutely no guarantee that any bullet fired will necessarily stay within that danger area. The bullet will only stay within it provided it is fired within the limits specified in the range regulations. The construction and design of a range are no match whatsoever for human error!

So, if the danger area behind the bullet catcher on an outdoor range is too short to capture a bullet which is fired with any significant angle of elevation above the top of the butts, what is it for? The answer is simply that it is there to catch ricochets and popovers from the butts. A ricochet is simply a bullet that hits a surface and bounces off (often with a characteristic whistling sound) continuing on its travel but at an unpredictable angle and with diminished energy. A popover is more likely to be something dislodged from the bullet catcher by an impacting bullet. ***A danger area is not designed to catch bullets which are fired directly over the top of the stop butt!***

The type of range referred to in the previous two paragraphs is known in military terms as a “gallery range". The reason for this is simply that it incorporates a feature known as the markers gallery. This is the area behind the mantlet where the markers stand when operating the targets. Military ranges of this type can vary in distance but are usually 600m with intermediate firing points at 100m intervals down to a minimum of 100m. Examples of civilian variations on the theme are Century, Stickledown, and Short Siberia ranges at Bisley.

The terms "gallery range" and "gallery rifle range" are often confused.

A *gallery rifle range* (as opposed to a *gallery range*) would have been known as a *pistol range* before the UK handgun ban in 1997. These ranges can be indoor or outdoor, usually have a maximum length of 25 or 50 metres and may have fixed or returning targets. From the RSO’s point of view, a gallery rifle range with fixed targets is arguably the most labour-intensive, as it requires constant vigilance to ensure the safety of anyone who must walk forward of the firing point to score and patch out.

RANGE ORDERS / REGULATIONS

Every range, of whatever type, should have regulations stating what can and can't and must and mustn't be done on that particular range.

- On a military range, these would be known as Range Orders or Range Standing Orders.
- On a private range, these regulations are the responsibility of the operator or owner and they can be called whatever they want to call them.

Having regard to those regulations, each club that uses that range will have its own regulations regarding club policy and procedures. Ideally, every person who uses the range should be thoroughly familiar with all of the regulations regarding its use. Of course, this isn't possible, given that the club will take on new members who have to be trained from scratch, or on guest days, for example. However, the training of probationary members must include a thorough briefing on all safety regulations and rules, and all participants in guest days must be closely supervised. All established members of the club MUST be familiar with these regulations.

CONTENTS OF RANGE ORDERS/REGULATIONS

Given below, in no particular order, are just some of the matters normally dealt with in Range Orders.

Although this list is typical of the regulations for an MoD gallery range, a private range should have an equivalent set of regulations or orders drawn up by the owner/operator.

They do not have to be produced to any particular format, but they must cover everything relevant to the safe running of each range.

Description. The distances, firing positions and lanes that may be used, etc.

Firearms. Firearms and calibres that may be fired on the range: In addition, maximum muzzle velocity and muzzle energy will be quoted for all permitted firearms.

i. Muzzle Velocity (MV).

ii. Muzzle Energy (ME).

For example: Max MV 520 m/s, Max ME 645 J.

Open/Closed Periods and Firing Times. Firing is normally permitted only between specified hours. RCOs/RSOs should check for variations in timing because of unscheduled closure for maintenance.

RCO/RSO Responsibilities. These would include compliance with Range Orders, reporting requirements and opening up and closing down procedures.

Range Danger Area. Description, warning signs & fencing.

Range Boundary Flags. Location, responsibility for raising & lowering.

Range In Use Flags. Location, responsibility for raising & lowering.

Clear Range Procedure. The procedure to ensure that the range is clear of danger both before and whilst the range is in use

Sentries/Lookouts. If applicable who provides? Where located and with what communications?

Medical Arrangements. First aid etc . Emergency telephone numbers.

Use of Roads. Traffic Circuit, restricted entry, speed limits, access to the butts.

Vehicle Parking. Authorised parking places and where parking is prohibited. (Observe this if you will want to use the range again!).

Emergency Procedures. Accidents and Incidents: action to be taken and to whom reported. Action in the event of heath fires etc.

Communications. What is provided and is it working?

Good Housekeeping. Clearing of all rubbish, unfired rounds and fired cases before signing off. (Leave the range as you would like to find it).

Bye laws. Are any applicable and under what conditions?

Wind Flags. If permitted who provides?

Security. Are there any special requirements over and above the usual security of firearms and ammunition?

Livestock. Will usually have to be removed from the firing area before firing can start and intrusion will force firing to stop.

INDOOR RANGES

Indoor ranges will have regulations regarding things such as the use of ventilation and lighting. On MoD ranges equipped with forced ventilation systems, these must be turned on at least twenty minutes before shooting starts, and remain on until at least thirty minutes after the last shot has been fired. These times may vary on private ranges in accordance with health and safety requirements.

ALTHOUGH THE STYLE IN WHICH A CIVILIAN RANGE IS RUN MAY BE LESS FORMAL THAN THAT OF RUNNING A MILITARY RANGE, THE STANDARDS OF SAFETY AND (SELF)DISCIPLINE MUST BE JUST AS HIGH!

SAFETY RULES

1
ALWAYS PROVE A FIREARM IS UNLOADED WHENEVER YOU PICK IT UP, OR HAND IT TO ANYONE, OR TAKE IT FROM ANYONE

2
ALWAYS POINT THE FIREARM
AT YOUR TARGET
(with some legitimate exceptions)

5

3
NEVER PLACE YOUR FINGER ON THE
TRIGGER UNTIL YOU ARE READY TO SHOOT

6

4
NEVER POINT A FIREARM AT ANYONE
(discuss)

7

NRA Safe Shooting System

Safe people

Safe equipment

Safe practice

Safe place

8

Safety requires **EVERYBODY** (not just the shooters) to behave responsibly

Danger can come from behind!

Non shooters, and those waiting to shoot

Boredom, lack of attention, handling firearms behind firing point, etc.

Handling firearms on the firing point when there are people down-range

Echelon shooting(200 mil rule)
Used at Bisley but not permitted on MoD ranges for civilian shooters.

Responsibility

The prime responsibility for the safe use of a firearm and ammunition *rests with the user,*

but

SAFETY IS EVERYBODY'S RESPONSIBILITY!

Probationary Members

Before becoming a full member, individuals must serve a probationary period of at least three months, during which time they must attend and shoot regularly. The probationary member must be given a course in the safe handling and use of firearms on a one to one basis by someone who is either a full member of that club or who is a coach with a qualification recognised by the Great Britain Target Shooting Federation and governing bodies.

Until a probationary member has satisfactorily completed a course in the safe handling and use of firearms, he/she must be supervised at all times when in possession of firearms or ammunition, by either the range officer or a full member of that club, or someone who is a coach with a qualification recognised by the Great Britain Target Shooting Federation and/or governing body.

Guest Days

Police must give permission

Usually twelve per year allowed

Section 21 declaration required

One-to-one supervision

In all cases, the person instructing/supervising the shooter must be qualified to do so, and is responsible for the safe use of the firearm and ammunition.

14

Whoever is running a range…

should be easily identifiable

must be familiar with programme, firearms, and ammunition

must be conversant with range protocols and all other relevant rules, regulations, and laws, etc.

MAY IMPOSE GREATER SAFETY PRECAUTIONS THAN ARE LAID DOWN, BUT MUST NOT RELAX ANY REGULATIONS.

15

Safety Precautions

HEARING PROTECTION

Must be mandatory on all ranges

EYE PROTECTION

Highly recommended for gallery rifle

MEDICAL ARRANGEMENTS

First aider / first aid kit

Hospital facilities, etc

16

The person running the range must be constantly alert to danger and not allow themselves to become distracted!!!!!

An effective briefing will make supervision much easier – briefings will be covered in greater depth later in the course.

Effective supervision should minimise the occurrence of problems.

Supervisors must never cut corners or allow standards to slip, and must always set an excellent example.

Supervisors should be reasonably familiar with the firearms and ammunition that are in use.

18

19

Range Commands

Range commands are the verbal instructions given when controlling all aspects of a shoot.

They must be:

CLEAR

CONCISE

UNAMBIGUOUS

LOUD ENOUGH!

20

Range commands should, as far as possible, use standard wording to avoid ambiguity. Any changes should be clearly explained before the shoot.

Some common commands and their meanings

"With a magazine of X rounds, load"
INSERT MAGAZINE OF X ROUNDS

"Make ready"
CHAMBER THE FIRST ROUND

"Carry on"
YOU MAY START SHOOTING

"Watch and shoot" Watch your front" etc.
SHOOT WHEN THE TARGET APPEARS

21

Pistol/Gallery Rifle/Barrack Ranges, etc.

ENSURE THAT THE RANGE IS CLEAR AND SAFE BEFORE ANYONE MOVES FORWARD TO CHECK TARGETS.

FIREARMS MUST NOT BE TOUCHED WHEN ANYBODY IS FORWARD OF THE FIRING POINT!!!

THE ACTION OF A LEVER ACTION GALLERY RIFLE MUST BE OPERATED AT LEAST THREE TIMES BEFORE BEING SHOWN CLEAR.

BREECH FLAG OR SAFETY CORD

22

MISFIRE
SLAM FIRE
HANG FIRE
BORE OBSTRUCTIONS
OTHER MALFUNCTIONS

23

NRA/MoD MISFIRE PROCEDURE

(for a bolt action rifle – other types must be opened as safely as possible)

KEEP THE FIREARM POINTING AT THE TARGET FOR AT LEAST THIRTY SECONDS BEFORE OPENING THE ACTION.

THE FIRER MUST TELL THE RCO.

THE RCO MUST ENSURE THAT THE ACTION IS OPENED SAFELY (WHILST THE FIREARM REAMAINS POINTED TOWARDS THE TARGET), WITH THE FIRER'S HAND FORWARD OF THE BOLT, AND THAT NO-ONE IS IN A POSITION WHERE THEY COULD BE INJURED.

THE OWNER OF THE DEFECTIVE AMMUNITION IS RESPONSIBLE FOR IT'S SAFE AND LEGAL DISPOSAL.

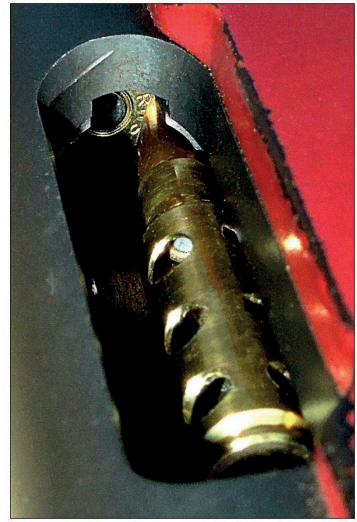
Subject to local conditions

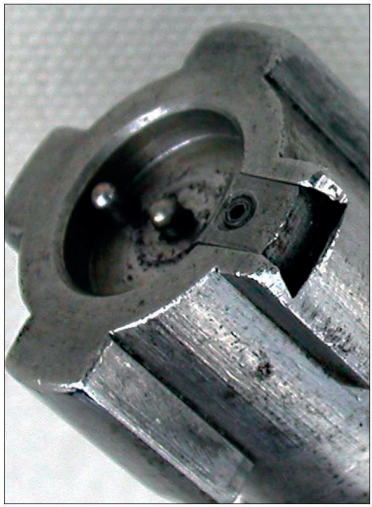
24

Ammunition

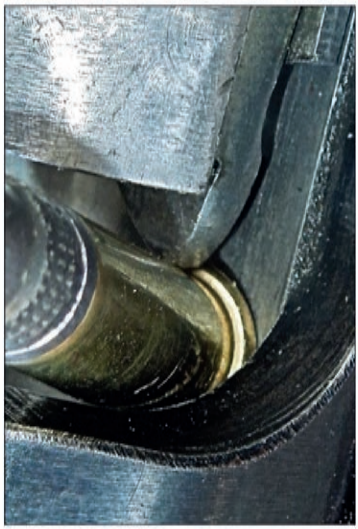
- Permitted types, calibres
- Correct calibre
- Mixing ammunition
- Condition
  - Factory
  - Home loads
  - Surplus
  - Old
- Mishandling
  - Misfires
- Removable magazines
- Recognising potential trouble
  - Moderators
  - Muzzle Brakes


SAFETY FLAG






SAFETY FLAG



IMMEDIATE ACTION FOLLOWING AN ACCIDENT/INCIDENT

STOP FIRING

DO WHATEVER IS NECESSARY TO MAKE SITUATION SAFE

IMMEDIATE FIRST AID/AMBULANCE/EMERGENCY SERVICES

INFORM RANGE CONTROL/OWNER/MANAGER, AS APPROPRIATE

MAKE RECORDS (WRITTTEN AND PHOTOGRAPHIC) OF EVENT FOR REPORT

PRESERVE EVIDENCE, AND DO NOT DO ANYTHING THAT MIGHT COMPROMISE ANY INVESTIGATION

DO NOT TRY TO COVER ANYTHING UP – BE ABSOLUTELY HONEST ABOUT WHAT HAPPENED!

Shooter Certification

All shooters *using MoD ranges* *(or shooting at Bisley)* must possess a certificate of competence signed by their club chairman for the categories of firearm that they are using

OR

if a shooter does not hold certification for a particular category of firearm, he or she may still shoot provided they are directly supervised by the holder of an appropriate valid certificate.

Who can handle what, as a member or guest of a Home Office Approved Club?

Full bore rifles
Small bore rifles
Muzzle loading pistols

Section 1 shotguns
Long barrelled handguns

45

RANGES

46

Relevant Requirements and Documentation

Range Safety Certificate *
Range Orders/Regulations
Risk Assessment
Insurance
Byelaws
JSP 403 – range design and construction
Home Office Guide on Firearms Licensing Law

*** The MoD no longer inspects or certifies civilian ranges. Safety certification is now the responsibility of the range owner/operator. Contact the NRA for advice.**

47

Range Design

Purpose built or
using natural features - quarries, etc.

Basic features

Firing point
Target
Danger area, or enclosed
Butts/bullet catcher
Bullet proof barrier between bays
Warning lights/flags

48

Range Danger Area (RDA)

"Those areas of land or water together with a specified volume of air above, within which danger to life, limb or property may be expected to occur, arising from the firing of specified ammunition types."

Range Terminology

LIMITED DANGER AREA
Gallery Ranges

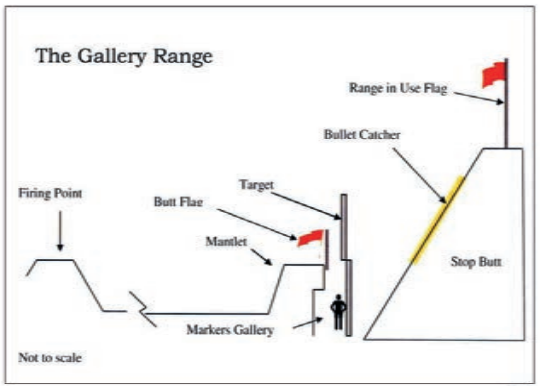
NO DANGER AREA
Barrack Ranges
Indoor Ranges, eg Cadet, ATC

FIELD FIRING RANGES
Do not have a limited/reduced danger area

Limited Range Danger Area

GALLERY RANGES

(NOT THE SAME AS GALLERY *RIFLE* RANGES!)

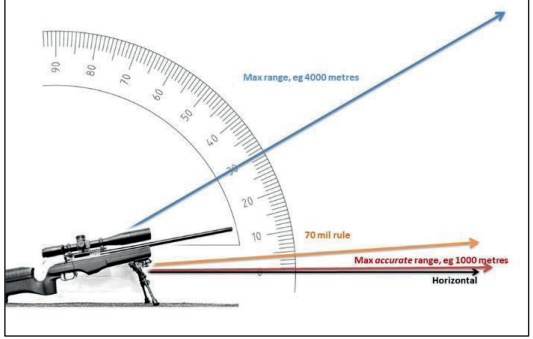


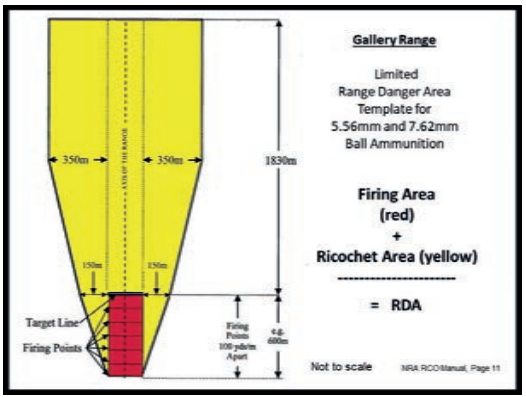
What is the maximum range of a 7.62mm/.308 bullet?

Approximately two and a half miles (four kilometres) when fired at an elevation of about 30 degrees.

Handgun and gallery rifle ammunition can be expected to travel about a mile.

Elevation and Distance .308/7.62mm





If fired from the 600 metre firing point, with an elevation of about 30 degrees, how far beyond the end of the danger area would a 7.62mm (.308 Winchester) bullet be expected to travel?

APPROXIMATELY 1600 METRES

(1 MILE)

MOST SHOOTERS ARE COMPLETELY UNAWARE OF THIS!

ALL LOADING, UNLOADING, STOPPAGE, AND INSPECTION PROCEDURES MUST BE CARRIED OUT WITH THE FIREARM HELD HORIZONTALLY, POINTING TOWARDS THE TARGET.

NO DANGER AREA RANGES

Barrack Ranges

Other No Danger Area Ranges

INDOOR RANGES

CHECK PERMITTED CALIBRES AND VELOCITIES, etc.

Warning lights

Linatex

Warning for use with air rifles.
Condition and patching.

Ventilation

Should be turned on at least 20 minutes before firing starts and remain on for at least 30 minutes after finish, subject to local conditions and / or regulations.

OUTDOOR RANGES

NDA made possible by virtue of range design and construction or by situation, for example within disused quarry. Shooting positions may be restricted.

Private Ranges

Outdoor

Indoor

Tunnel

Pipe

Fairground

Monmouth Range

Thanks to Mike Evans, Monmouth Shooting Club

Tube Range, The Lamb, Devizes
Thanks to Sally King, landlady of the Lamb, 20 St John's St, Devizes SN10 1BT

Indoor Ranges

Range in use light
Ventilation (20 minutes before, 30 after)
Powder burnt/unburnt
Metallic contamination
Lighting – sufficient, and properly positioned
Physical obstructions, trip hazards
Condition of benches, chairs etc.
Booths – are the shooters visible to each other and whoever is running the range?
Linatex condition
Condition of bullet catcher, damage, lead build-up, etc.
Ricochet hazards
Targets of approved type, and appropriate for the types of firearms being used, eg air rifles?
Air rifles and pistols - bounceback

Planning and Preparation

Club rules and policies
Range rules
Insurance
Law
Risk assessment (RASP/RAM)
Duties
Programme, course of fire, etc.
Training / supervision of probationary members
First aid and medical arrangements
Security
Access to range
Communications
Equipment
Targetry (availability, type, controls, markers
Firearms and ammunition (club and private)
Record keeping
Cleaning up
Locking up

Outdoor Ranges

Flags – boundary and butt
Communications
Markers
Lighting
Physical obstructions, trip hazards
Ricochet hazards
Condition of firing point, benches, chairs etc.
Condition of bullet catcher, damage, lead build-up, etc.
Targets of approved type, and appropriate for the types of firearms being used, eg air rifles?
Air rifles and pistols – bounceback
Public footpaths
Fencing
Incursions into danger area

Range in Use Lights, Flags and Signs

DANGER!

eg

Red Lights
Range Boundary Flags
Range in Use Flag
Butt Flag

CLEAR RANGE PROCEDURE

CHECK THAT THE RANGE IS SAFE IN ALL RESPECTS BEFORE ALLOWING SHOOTING TO START, AND REMAINS SAFE WHILST SHOOTING IS IN PROGRESS!

Firearms: On the firing point

Handling

Permitted types, calibres
Removing from case and proving clear – when and how?
Pointing where?
Triggers and fingers
Loading/unloading procedures
Aiming and dry firing – with permission, and only when safe to shoot
Removal of firearms from the firing point, or moving from one firing point to another
Going forward – security and condition of firearms left on firing point.
MUST NOT BE TOUCHED WHEN ANYONE IS FORWARD OF F/P.

Firearms: Behind the firing point

Handling

Carriage – on and off the range – muzzle up/down?
Security
Storage
Cased or uncased?
Action: open or closed?
Bolt
Breech flag
Aiming, dry firing, etc.

Suspension of Firing

AIRCRAFT

Hot air balloons, microlights, gliders, etc.

INTRUSIONS INTO DANGER AREA

Walkers, vehicles, etc.

Unload and clear firearms, if applicable inform Range Control, eg at Bisley.

OTHER REASONS

Lightning, fire, etc.

Giving a Briefing

Purpose of briefing
What to include
How, when, and where to deliver

"STOP, STOP, STOP" Who can say it, and what to do if you hear it
Hearing and eye protection.
Misfires.
Safety rules.
Aiming and dry firing.
Local policies and regulations, eg carrying firearms muzzle up/muzzle down. Cased or uncased.
Handling of firearms behind firing point?
The firing point must be vacated, and no firearms to be touched, whilst people are downrange.
Specific instructions re the course of fire, range commands, etc.
Duties and responsibilities.

NOBODY SHOULD BE UNCERTAIN OF WHAT IS HAPPENING, OR OF WHAT IS REQUIRED OF THEM!

IMMEDIATE ACTION FOLLOWING AN ACCIDENT

In any incident involving injury or damage the following action should be taken:

a. Stop firing, secure the site and touch nothing unless this is essential for safety or medical reasons.

b. Do only what is necessary to make the situation safe.

c. Arrange for First Aid and call for further medical assistance if necessary.

d. Inform Range Control where applicable and follow their instructions.

e. Carry out a preliminary investigation and record all the circumstances including:

i. **PRESERVE THE SCENE INTACT**

ii. General details e.g. time, date, place.

iii. Details of injured person, the firer, the firearm and ammunition.

iv. Details of witnesses.

v. Action taken by individuals at the time.

vi. Was the ammunition being used in the correct manner?

vii. Was the firearm being handled correctly?

viii. What orders relevant to the incident were given?

Note: If a camera is available e.g. in a mobile phone, photographic evidence should be taken.

NOTE: There will always be an investigation and possibly police and/or military involvement. Co-operate with the investigating authorities.

A written report with any recommendations must be sent to the Club/Association and copied to the NRA. An example of a standard Accident/Incident Report form can be found at ANNEX J. This form should be completed after any "Reportable" accident or incident.

NOTE: If RSO/RCOs report all incidents to the NRA, the National Organisation will be in a better position to advise clubs on safe and unsafe practices.

UNAUTHORISED DISCHARGE OF AMMUNITION

NEGLIGENT DISCHARGE

A negligent discharge is either a shot fired, whether in a safe direction or not, without the order to fire having been given or after the order to stop firing, or a shot fired after the order to fire has been given but in an unsafe direction.

A negligent discharge will usually arise from a breach of safety rules and may occur either on or off the firing point.

Negligent discharge on the Firing Point, which does not cause injury. The RCO should take the following action:

a. Make the situation safe.

b. Require the firer to withdraw immediately from the firing point, leaving his firearm and kit on the point until the detail has finished.

c. When the detail has finished investigate the circumstances of the discharge.

d. Determine if there was a breach of safety and, if so, how serious.

e. Consider and apply an appropriate sanction (See para 2.5.8 to 2.5.13).

f. Inform Range Control immediately.

Negligent discharge away from the firing point. The RCO must take whatever action is appropriate at the time having regard to the seriousness of the matter.

In such circumstances the firer must, at the very least, be suspended from further participation and dismissed from the range. A Report must also be sent to his Club/Association: see ANNEX J.

UNINTENTIONAL DISCHARGES

Unintentional Discharges can arise in different circumstances during rifle, gallery rifle and pistol practices.

a. Rifle. If a round is accidentally fired at a target after a shoot has started, i.e. after an order to load and fire has been given, and was deliberately aimed at the target, there is not normally any safety implication. The firer has either fired at the wrong target or fired out of turn at his own target and would be penalised accordingly under the rules. The RCO should simply apply the Rules governing that particular discipline.

b. Gallery Rifle/Pistol. A round fired at any time following the command "Load" will be considered to be an accidental discharge, providing that the gallery rifle/pistol is pointing in a safe direction, i.e. towards the targets, and there has been no breach of safety. The RCO should take whatever action is required by the Rules governing that particular discipline.

NOTE: The essential difference between a NEGLIGENT and an UNINTENTIONAL Discharge is that the former will constitute a breach of safety whereas the latter may not. Positive and immediate action is required by the RCO for the former, whereas for the latter the application of the discipline rules will be all that is required.

LAND COMMAND STANDING ORDER (LANDSO) NO. 3202 - REPORTING OF INCIDENTS INVOLVING SERVICE AMMUNITION, MILITARY PERSONNEL AND CADETS

Any incidents involving the use of service firearms, ranges, ammunition, military personnel or cadets are likely to be of interest to the media. For this reason all such incidents must not only be dealt with in accordance with ANNEX J but must also be reported as quickly as possible to the appropriate military authorities.

A modified version of LANDSO 3202 is attached at ANNEX N. It contains contact details of those military authorities who must be contacted in the event of a qualifying incident. Two Appendices are also attached, these being:

1. Incidents that must be reported.

2. Land Incident Report (INCREP).

INCIDENT / ACCIDENT - FIREARM /AMMUNITION REPORT FORM

PLEASE READ NOTES BELOW BEFORE COMPLETING THIS FORM.

Note 1. When completing this form please delete as appropriate.

Note 2. Category of Incident/Accident to which this form refers.

		COMPLETE PARTS
1.	Firearm burst.	'A' and 'B'
2.	Firearm cannot be unloaded.	'A' and 'B'
3.	Other malfunction of firearm.	'A' and 'B'
4.	Signs of pressure, primers bursting, difficulty loading/unloading.	'A' and 'B'
5.	Shot(s) fired beyond the danger area.	'A' and 'B'
6.	Shot(s) causing injury/death, damage within the danger area.	'A' and 'B'
7.	Shot(s) fired outside permitted hours.	'A' and 'B'
8.	Dangerous behaviour by firer or other person(s).	'A' and 'B'
9.	Firearm/ammunition handling on/off the range.	'A' and 'C'
10.	Loss or theft of firearm(s) and/or ammunition.	'A' and 'D'

Note 3. Situations

a. In any situation where death or injury has occurred and it is necessary to notify the Police, with the exception of making the situation safe and any necessary attention to injured person(s), the scene of the Incident/Accident must be preserved intact and the locations of relevant persons established, witnesses secured and statements taken. Once this has been done, all persons present must be assembled in a safe place. On no account may firearm, ammunition, equipment or fragments associated with the Incident/Accident be touched or moved.

b. If the Incident/Accident falls into Categories 1 to 4 in Note 2. above, fired and unfired samples of the ammunition in use at the time must be retained/made available for inspection.

c. If the danger area is likely to be compromised by, for example, a loaded firearm pointing in a dangerous direction, the firearm must be aligned with its target.

d. If butt markers are in the butts and cannot leave by a safe route, they must remain under cover of the butts until their exit route is safe.

IMPORTANT: It is essential that Range Conducting Officers are at all times aware of the conditions laid down in Note 3 above, so that in the event of an Incident/Accident occurring, the correct locations of persons, equipment, etc. may be entered on the 'PLAN OF THE SCENE' at the end of Part B.

Note 4. An insoluble dangerous situation. Any dangerous situation that cannot be made safe by the time firing is due to stop must be reported immediately to the Range Warden/Manager, who will consult the appropriate Military or Civilian Authority.

Note 5. The Range Log. On military ranges, when completing the Land Range Log MoD Form 906/906A at the end of the event, all reportable incidents/accidents must be recorded in the log. Also, any damage to or deterioration of the range structure, equipment or targets must be reported.

On Civilian ranges, the equivalent report must be handed to the Range Manager or his representative.

Note 6. Sanctions. If at any time it is necessary to dismiss a Firer from the range the RSO/RCO must send a report to the Firer's Club/Association (and the Secretary General NRA if applicable) requiring a Sanction to be imposed on the Firer. The report should give details of the event and the Club/Association's details. The RCO is to request confirmation that the Sanction has been imposed, and must impose a time limit on the Club/Association's response. Should the Club/Association fail to comply with this, or impose a Sanction that the RCO considers inadequate or inappropriate, the Secretary General NRA must be advised at once with full details.

PLEASE COMPLETE THE FOLLOWING

PART A. THE EVENT. To be completed for ALL categories.

CATEGORY NUMBER(S) (See Note 2 above).....

1. Name of Body organising the Event.....

2. Description of Event.....

3. Date of Incident/Accident .....

4. Time of Incident/Accident.....

5. Name and address of location of incident/accident: .....

.....

.....

.....

6. Name of range, building or area within location.

.....

7. Was the event authorised and legally conducted? Yes/No *
If 'No, provide details.

.....

.....

.....

.....

8. Prevailing weather conditions -

a. Dry / Light Rain / Heavy Rain*

b. Light: Good / Poor*

c. Wind: Gale / High / Low*

9. Was any photographic evidence taken? Yes/No* (Please enclose if "Yes")

If "Yes" by whom': .....

10. Name of RCO or person in charge: .....

11. Signature of RCO or person in charge.....

12. Date Report Submitted: .....

PART B. INCIDENT/ACCIDENT ON A FIRING RANGE

DETAILS OF THE INCIDENT/ACCIDENT

1. Name(s) of Primary Person(s) who initiated the Incident/Accident:

2. Names of Others:

   a. Involved .....

   b. Injured .....

   c. Killed .....

   d. Witness 1 .....Signature .....
   Address
   .....
   .....

   e. Witness 2 .....Signature .....
   Address
   .....
   .....

3. Firearm Make and Type: .....

4. Name of Owner of Firearm: .....

5. Serial Number of Firearm:.....

6. FAC seen: Yes/No. * Issuing Authority.....Number .....

7. Description of Ammunition used:

   a. Commercial/Hand loaded*

   b. Calibre and Type:

   c. Manufacturer/Maker:

   d. Any other relevant details:
   .....
   .....

8. Communication. Was range communication intact and functioning? Yes/No*
   If No, provide details:
   .....

.....

9. First Aid. Was a First Aid kit available at the scene? Yes / No * If No, give location of nearest First Aid Kit .....

Name of Person administering First Aid .....

10. RCO's words of command immediately prior to the Incident/Accident:

.....

.....

11. Did the Incident/accident occur before/after* the order to start firing?

12. Suggested primary cause of Incident/Accident:

a.	Dangerous behaviour	Yes / No
b.	Ammunition defect	Yes / No
c.	Firearm defect	Yes / No
d.	Other (specify)	
e.	Was the firearm being used correctly?	Yes / No

If No, provide details: .....

13. Full description of the event:

.....

.....

.....

.....

14. **ACTIONS TAKEN FOLLOWING THE EVENT**

a.	Range Warden/Controller informed:	Yes / No **	at ..... time
b.	Emergency services called	Yes / No*	at ..... time
c.	Police informed	Yes / No*	at ..... time
d.	Firer warned but permitted to continue firing.	Yes / No*	
e.	Firer dismissed from the firing point.	Yes / No*	
f.	Firer dismissed from the range (see Note 6.)	Yes / No*	

15. **ACTION TAKEN IN RESPECT OF THOSE INJURED / KILLED**

INCLUDING CONTACT DETAILS

.....

.....

.....

16 DETAILS OF PROPERTY DAMAGED

a. Name of Owner of damaged property

b. Description of damaged property: .....

.....

c. Damage sustained by the property: .....

.....

17. ACTION TAKEN AFTER THE INCIDENT/ACCIDENT IN RESPECT OF THE FIREARM INVOLVED

a. Was the firearm and magazine (if fitted) unloaded, open and safe? Yes / No*

b. Was a breech flag fitted or bolt/action removed? Yes / No *

c. If still loaded, was the firearm pointed at its own target? Yes / No*

18. SKETCH PLAN OF THE SCENE

Show the positions of all those present, the firearm(s), equipment and fragments etc.

Notes on the sketch.

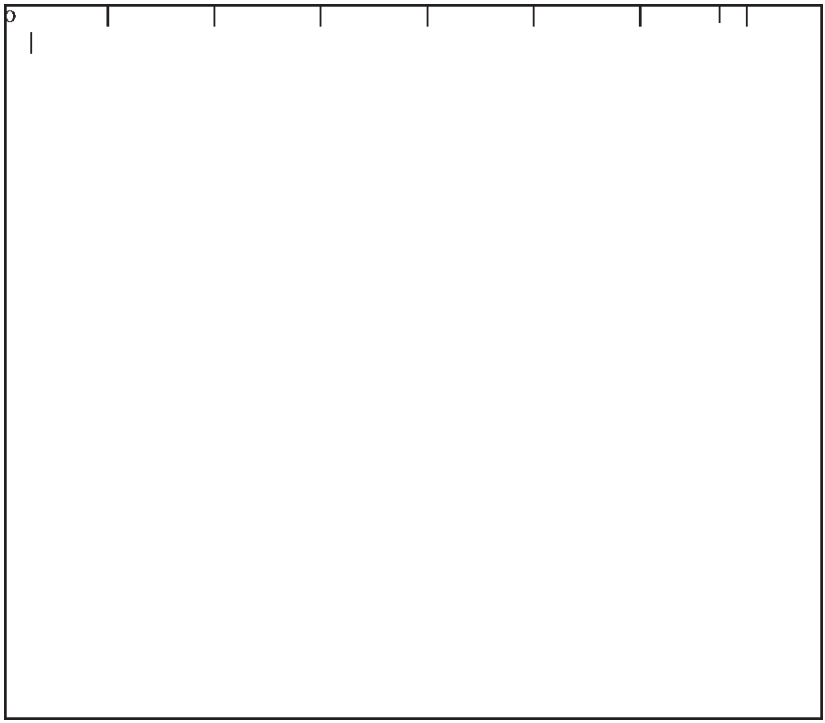
a. Insert total length and width of the scene in metres on the plan.

b. If on a firing range indicate the axis of the range with an arrow and the word "AXIS", the direction of the targets and the lane numbers.

c. Insert the positions of the firer and other relevant persons, with names, the firearm, equipment and fragments, and all other important features.

Plan of the Incident/Accident

Length …… Metres Width …… Metres



Drawn

By: …… Signature …… Date ……..

PART C. INCIDENTS INVOLVING FIREARMS OR AMMUNITION

FIREARM/AMMUNITION HANDLING ON/OFF THE RANGE

GENERAL

Names and addresses of all ***other*** persons involved (see Part A, para 9):

Name 1 .....

Address .....

.....

Name 2 .....

Address .....

.....

Name 3 .....

Address .....

.....

Names and addresses of witnesses

Witness 1 .....

Address .....

.....

Witness 2 .....

Address .....

.....

Name and number of Police Officer if any: .....

DETAILS OF THE INCIDENT/ACCIDENT

1 Personal injury Yes / No*

General description (See para 8 below) .....

.....

2 Fire/explosion Yes / No*

General description: .....

.....

3 Damage to property Yes / No*

General description: .....

.....

4 Other: Specify ..

General description: ……..

……

5. Weight of Item handled if in excess of 25 kg ……

6. Were there any signs displayed in the area of Incident/Accident?

a.	No Smoking	Yes / No*
b.	Hearing Protection	Yes / No*
c.	Protective Clothing	Yes / No* Specify ……..
d.	Other	Yes / No* Specify ……..

7 Your authority to handle Firearms/ammunition:

a Hearing Protection FAC number …… Issuing Authority ……..

b Other……

8 Detailed description of event in para B 1 to 4 above:

……

……

……

……

……

9 Exceptional hazardous conditions noted at the scene (e.g slippery floor, rubbish lying around, broken hand rails, flammable materials, hazardous electrical systems, etc):

……

……

……

……

……

……

10 Apparent damage sustained by firearms/ammunition:

.....

.....

.....

.....

.....

.....

11 Apparent consequential damage at the scene:

.....

.....

.....

.....

.....

.....

PART D. LOSS OR THEFT OF FIREARM/AMMUNITION.

ARTICLE(S) LOST

1. Description: .....

2. Make: .....

3. Quantity: .....

4. Serial number: .....

5. Distinguishing marks/feature: .....

.....

6. Accessories fitted (sights, sling, scope, bipod etc):

.....

7. Container/case/box:.....

8. Name of Owner: .....

9. FAC which refers:

a. Name: .....

b. Number:.....

c. Issuing Authority:.....

10. REPORTING

a. When loss / theft discovered.

Date ..... Time .....

b. When loss / theft reported. Date .....

Time .....

c. When was article last seen?

Date ..... Time .....

d. Where was article last seen? .....

e. Loss / theft reported to: .....

Address .....

.....

f. Police Officer in charge. Name .....Number.....

g. Police Area ..... Incident Number .....

11. THE EVENT

a. **LOSS / THEFT FROM A BUILDING OR OTHER PLACE.** Full description of the event, with details of damage to property, forced / broken locks / windows etc. where appropriate:

.....

.....

.....

.....

.....

12. LOSS/THEFT FROM A MOTOR VEHICLE

a. Owner of vehicle:.....

b. Type of vehicle: .....

c. Registration number: .....

d. Location of article in vehicle prior to loss/theft:

.....

e. Would the article have been visible in the vehicle? Yes / No*

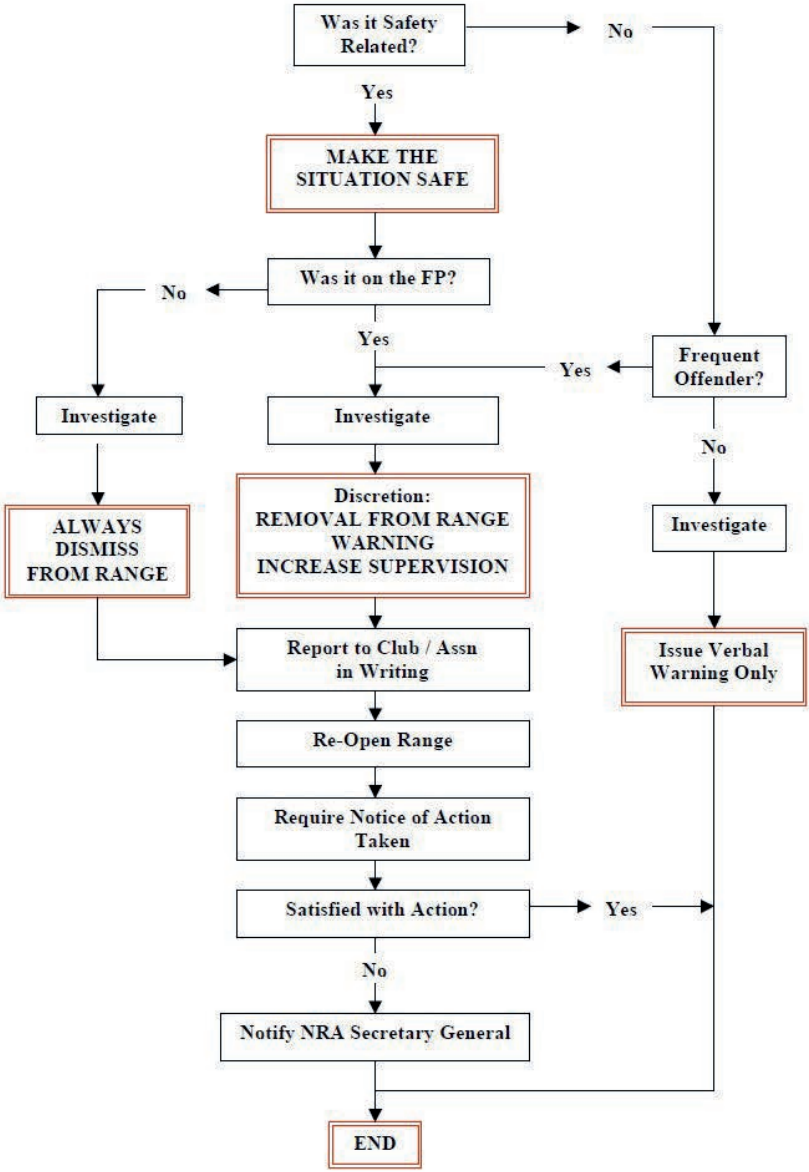
f. Was the vehicle locked? Yes / No*

g. Was the vehicle equipped with an activated alarm? Yes / No*

h. Full description of event: .....

Please continue on separate sheet(s) if necessary

Action on a Breach of the Rules



HIGH MUZZLE ENERGY PROCEDURES

1. The National Rifle Association (NRA) and MoD approved procedures below must be used on MoD ranges when civilians are shooting on constructed ranges with firearm / ammunition combinations where muzzle energy (ME) exceeds 4500 Joules. Note that:

a. No firearm with a muzzle energy exceeding 7000J may be used on a constructed MoD range.

b. HME procedures do not apply on No Danger Area (NDA) ranges, but the range limitations must be checked to ensure that the developed MV and ME lie within permitted values.

c. The zeroing procedures below must be carried out: on an NDA range or a range with a stop butt that is immediately behind the target and that meets Gallery Range criteria; exceptionally, for large calibre historic or hunting rifles being used at distances of 200 metres or less only, into the zeroing butt at 100yd on the British Sporting Rifle Club layout at Bisley.

2. The Chairman of the appropriate Club must give authorisation in writing before a shooter may use a firearm / ammunition combination generating over 4500J muzzle energy. Such authorisation will normally be given through the certification process.

3. The shooter is to check zero using the procedure described below under the supervision of an RCO who holds the NRA RCO (HME) qualification (except when checking zero on the Zero Range at Bisley, which is a NDA Range and on which supervision by an RCO (HME) is not required), as the first activity of any range session. If HME fire will be carried out from distances in excess of 200 metres, then the full procedure below is to be carried out. If HME fire will take place only from 200 metres or less, then only paras a, c, d, e and f apply:

a. The RCO (HME) is to record in the MoD Form 906, Land Range Log, when a firearm / ammunition combination is being used which generates muzzle energy greater than 4500J.

b. Before shooting at any distance greater than 200 metres, the shooter is to demonstrate that the firearm is correctly zeroed by firing a 3-shot group which must fall within the box of the issued NRA/MoD approved target at 200 metres or, at Bisley only, within the box of the appropriate HME zero card used on the Zero Range. The RCO is to confirm that the zeroing target being used is correct for the firearm / ammunition combination and for the planned subsequent activity.

c. The target is to be attached such that the target centre line is set on the target screen centre line both vertically and horizontally.

d. The shooter is to clarify to the RCO (HME) the rifle type and technique to be used to ensure a hit with the first shot.

e. Because of the increased risk of splashback with high energy bullets the butt marker is to wear safety glasses in addition to hearing protection.

f. The RCO will appoint a person to observe the initial fall of shot until the initial strike on the target screen is identified:

(1) If a strike off the target screen is clearly identified the shooter may adjust and fire again.

(2) If no strike is identified the shooter is to cease fire until the weapon has been re-collimated or bore-sighted to the RCO (HME)'s satisfaction.

g. Rounds on target may be adjusted but only the 3 final rounds are to be counted for the group, one of which may include the final adjusting round.

h. All 3 rounds of the final group must be within the box before the shooter may move to a different distance.

i. The butt marker is to identify clearly and mark those shots which were used as sighting shots and which are not to be included in the qualifying group.

j. After qualification the target is to be completed and signed by the shooter and the RCO (HME) and retained by the Club for 12 months.

4. Direction is provided on the NRA / MoD approved target for sight adjustment for different distances subject to achieving a successful group.

5. The zeroing procedure is to be carried out on each day the shooter wishes to shoot unless the zeroing is for an official competition or training course where firing is carried out on consecutive days, when the procedure may be considered valid for the duration of the competition or course.

6. Once zeroed using the procedure in paragraph 3 above, the shooter may shoot under the direction of a qualified NRA RCO who need not have the HME qualification. If, in any practice, the first shot from an HME firearm misses the intended target, the firer may only continue if one of the following applies (derived from a reduced version of the exemptions in NRA rules for such an occurrence in competition – as at 31 Mar 14, NRA rule 277):

a. The shot was seen to strike the stop butt, or was registered by an electronic scoring system.

b. The firer identifies and rectifies a fault or error (eg left instead of right wind allowance) that would reasonably account for the miss.

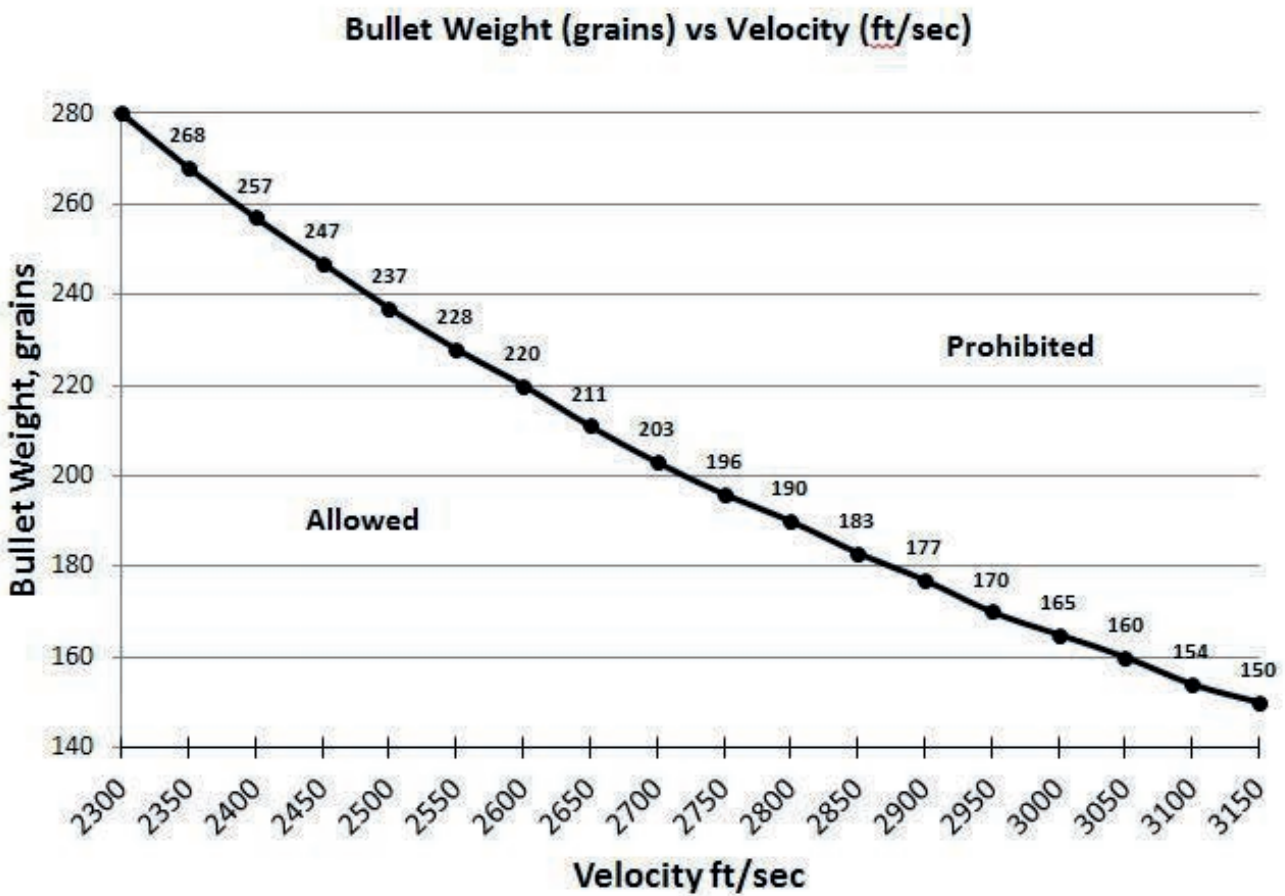
c. There is reasonable evidence (eg an unexplained shot on the next target) that the firer has crossfired.

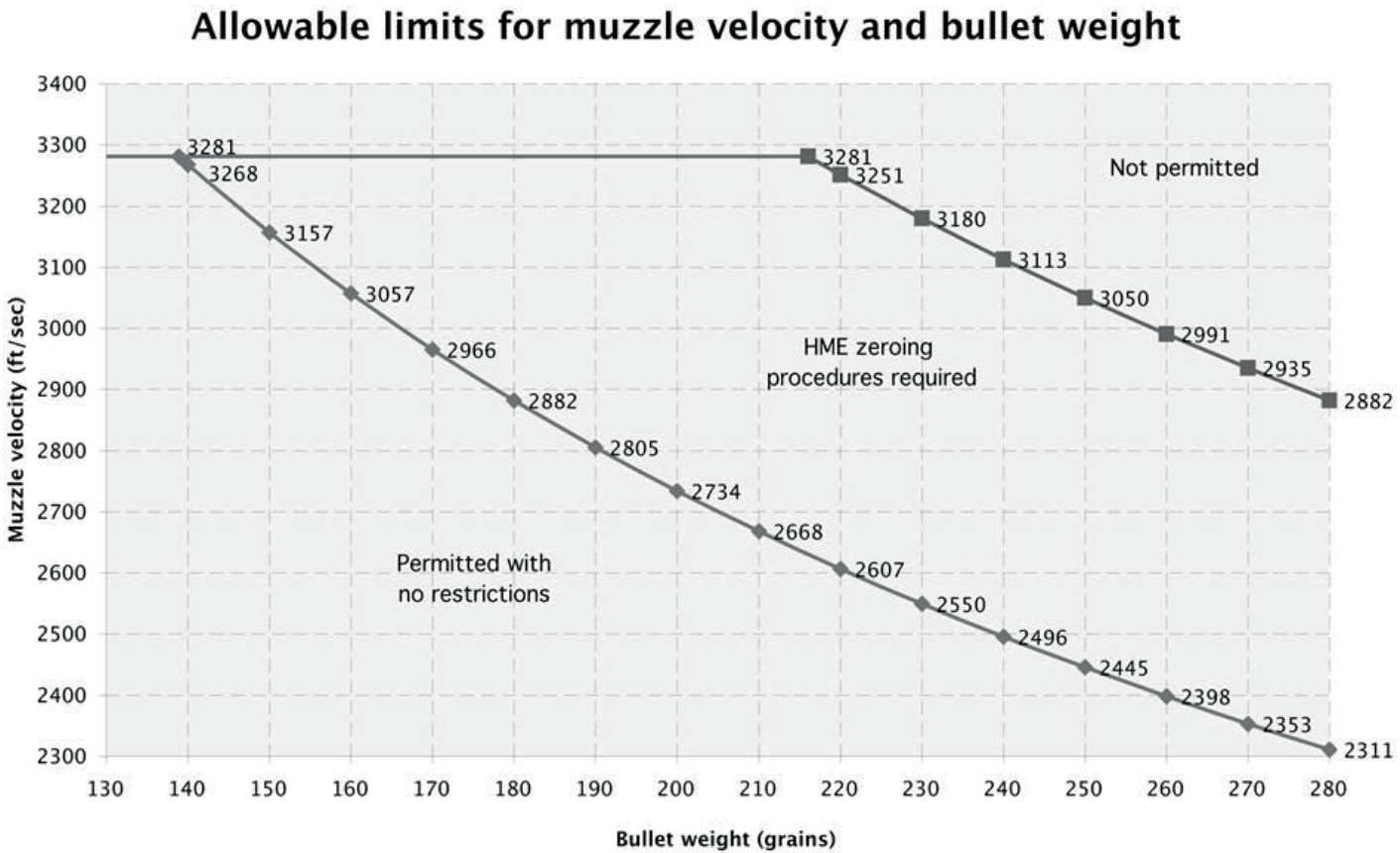
d. There is reasonable evidence (eg based on the advice of other firers) that the wind allowance applied was such as to account for the miss.

HME at 200 metres or less.

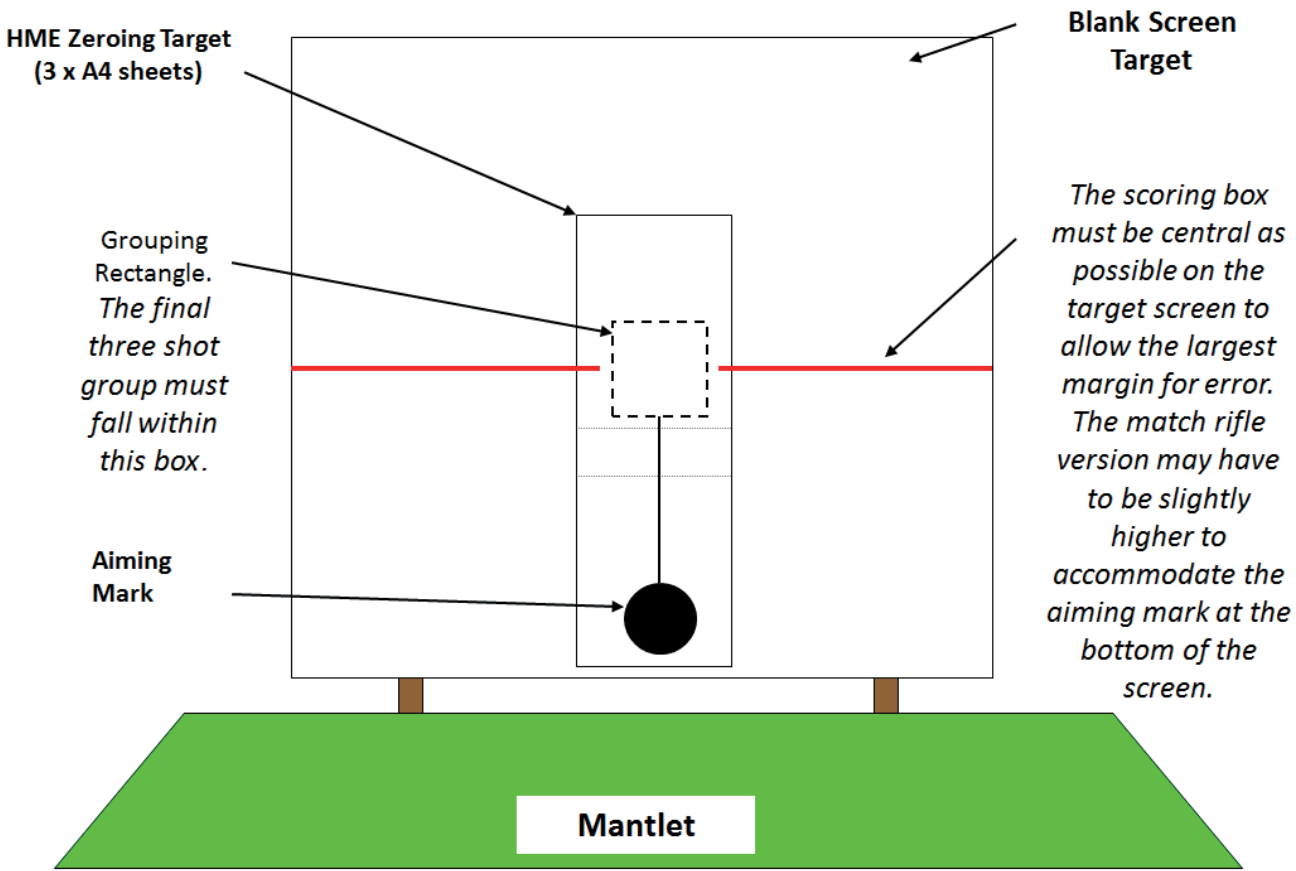
Since the allowable cone of fire for deliberate supported fire is contained within the stop butt of a gallery range at 200 metres or less, all that is required to ensure capture of bullets in the stop butt is that the firer confirms that the firearm is correctly set and then fires a deliberate correctly aimed shot on such a range. Para 1(c) of the HME procedure defines the ranges that may be used. Provided that the impact of that shot is registered, whether by eye, by a strike on the target or by an electronic scoring system, the firer may then continue. The process to achieve that is set out at paragraph 3. Note that this procedure does not require use of a special target.

The firer may engage the target intended for the subsequent practice from the start, provided that it enables hits to be registered and meets the requirement regarding placing on the target screen. Note also that initial zeroing at any distance less than 200 metres is, by implication, valid for any subsequent distance up to 200 metres, other than the special case of BSRC.


Bullet Weight (grains) vs Velocity (ft/sec)
Bullet Weight, grains
280
260
240
220
200
180
160
140
268
257
247
237
228
220
211
203
196
190
183
177
170
165
160
154
150
Prohibited
Allowed
2300
2350
2400
2450
2500
2550
2600
2650
2700
2750
2800
2850
2900
2950
3000
3050
3100
3150
Velocity ft/sec


Allowable limits for muzzle velocity and bullet weight
Muzzle velocity (ft/sec)
Bullet weight (grains)
3400
3300
3200
3100
3000
2900
2800
2700
2600
2500
2400
2300
130
140
150
160
170
180
190
200
210
220
230
240
250
260
270
280
3281
3268
3157
3057
2966
2882
2805
2734
2668
2607
2550
2496
2445
2398
2353
2311
3281
3251
3180
3113
3050
2991
2935
2882
Not permitted
HME zeroing
procedures required
Permitted with
no restrictions

THREE-PIECE ZER TARET FOR DISTANCES GREATER THAN 200 YDS/MTRS, FOR USE WITH RIFLES SET UP FOR LONG RANGE SHOOTING (cannot zero point of aim at 200)



NRA 200 YRD/MTR THREE-PIECE HME ZEROING TARGET FOR USE WITH RIFLES SET UP FOR LONG RANGE, NOT CAPABLE OF DIRECT (PoA) SETTING OF ELEVATION.

The position of the scoring box varies on the blank target for F Class (flatter trajectory) or match rifle (steeper trajectory).

NRA 200 Yard / Metre HME Zeroing Target for use with Firearms capable of direct setting of elevation for 200. Final group must fall within black aiming mark.

Name_____ Club_____

Rifle Serial No_____ Numeric elevation reading_____

Ammunition: Cal_____ Bullet Wt _____ Load_____

Date_____ Firer Sig _____RCO Sig_____

Attach bottom of sheet 2 along this line

NRA 200 yard Zero Target

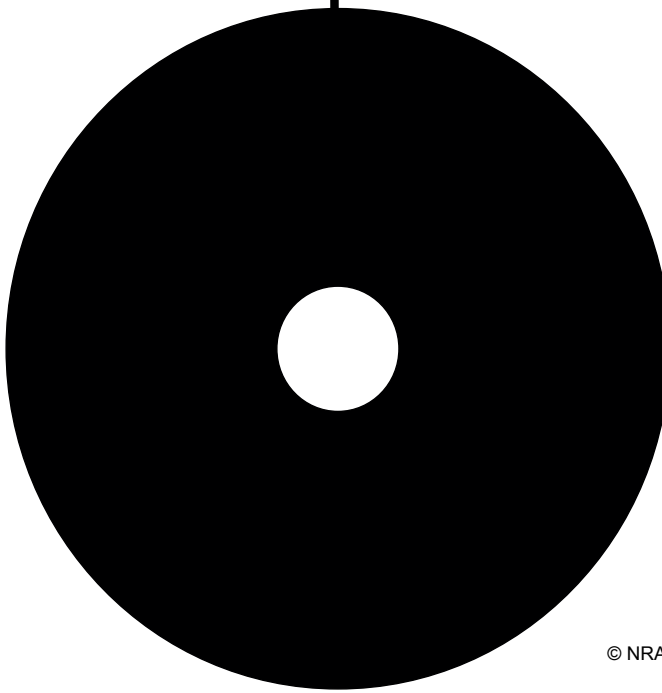
For 600 yards elevation: telescope sights only.

F – Class type Rifle

Range	Elevation
200	0
600	7
1,000	22
1,100	27
1,200	32

.308 – (NRA Match Rifle)

Range	Elevation
200	0
600	11
1,000	30
1,100	36
1,200	42



Sheet 1

Target Centre Height

For .308 (NRA Match Rifle) attach bottom of sheet 3 here

Instructions for use

1. Attach the bottom of Sheet 2 onto Sheet 1 at the dotted line.

2. Attach the two sheets onto the 200 yard target with the **bold** line at the top of sheet 2 as near as possible to the target centre line.

3. For .308 (NRA Match Rifle) attach the bottom of sheet 3 onto the dotted line at the top of sheet 2.

4. For F class Rifle attach the Bottom of sheet 3 at the dotted line at the base of sheet 2.

Sheet 2

For F Class Type Rifle attach bottom of sheet 3 here

.308 – (NRA Match Rifle) (delete one) **F Class Rifle**

Date:……..……..……
RCO ……...……..…..
RCO Signature……..……

Sheet 3

Name:……..…
Club:……..…….
Rifle Ser No:…….
Ammunition calibre bullet wt and load:
……..……

NATIONAL RIFLE ASSOCIATION

National Rifle Association
Bisley, Brookwood, Surrey GU24 0PB
Tel: 01483 797777 Web: nra.org.uk