

GSBRC LBG Range Operating Procedure

Prepared for:

GSBRC LBG

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Introduction

Smallbore Target Shooting in Guernsey has a history extending back to the turn of the 20th century. The pursuit was generally followed by people who wanted to practise target shooting locally without the need to wait for fine weather. Local community halls and purpose built indoor ranges were put into use and the practice quickly turned into a recreational sport

What is this R.O.P for

This Manual is designed to provide technical guidance along with typical examples of physical layout and equipment used on Rimfire and Air Rifle Ranges.

It is specifically related to smallbore (0.22in or 5.60mm calibre), subsonic, soft lead projectiles fired from a single shot target rifle and 0.177in or 4.5mm pellets fired from a single shot air rifle. To ensure clarification throughout this manual, from here on in, smallbore ammunition as described above, shall be referred to as "RIMFIRE" unless otherwise stated. Air Rifle projectiles will be referred to as "PELLETS"

Seven basic rules for Firearm Safety

1. Treat every firearm as loaded
2. Always point firearms in a safe direction
3. Load a firearm only when ready to fire
4. Identify your target
5. Check your firing zone
6. Store firearms and ammunition safely
7. Avoid alcohol or drugs when handling firearms

Safety is Paramount

All shooters in GSBRC LBG affiliated ranges shall:

- Be familiar with the Range Operation Manual
- Be familiar with the safe use of firearms
- Use all firearms under the controlling instructions of the Range Officer.
- Obey the designated Range Officer who shall have absolute control of the rifle range while shooting is in progress. Shooters shall obey ALL their instructions.
- Treat firearms AT ALL TIMES as loaded. This means when handling any firearm, check the action is open and the breech is clear of ammunition.
- Ensure that visitors to GSBRC LBG affiliated ranges shall be accompanied by a person competent in the safe handling of firearms and who is fully conversant with the Range Operation Manual. This person shall ensure that a valid firearms license holder is present whenever a visitor is handling a firearm and that before the visitor handles a firearm they are informed of all safety procedures pertaining to the Rifle Range and the safe operation of firearms.
- Ensure that AT ALL TIMES the Rifle Range shall be operated in a manner that ensures the safety of all shooters and the general public.

Range Construction

All Rimfire and Air Rifle Ranges shall be constructed to ensure projectiles fired from the firing point towards the range targets are confined within the immediate range area and their remains do not pose a hazard to safety and health.

The physical range construction is designed to prevent the remains of bullets, - whether they be whole or in part, from exiting the building or range environs, or returning to the shooter as dangerous projectiles.

Backplate area

Areas subject to more than occasional direct strikes

Bullet catcher

Areas subject to intense and continual strikes. Immediately behind the targets - and including the warmer or fouling shot area!

Defence Zone

Since this area will generally be subject to occasional impact, the requirement is to contain bullets that glance the walls, floor and ceiling at shallow angles. The provision of vertical baffles along the wall if there is sufficient space and their incorporation in the ceiling may be advantageous in allowing a minimum of material to be used. (See Baffles below)

Acceptable surfaces for the Defence Zone:

- Smooth concrete floor
- Soft earth floor
- Concrete block walls, smooth finish with smooth pointed joints.
- 3mm sheet steel supported on the walls and ceiling overlapped with the join towards the target.
- Adequate thickness of overlapping timbers.
- 30mm Hardwood } extremely variable depending on
- 40mm Softwood } type and quality of timber
- Any other method demonstrated and documented to be equally as effective

Pillars

Concrete or steel pillar supports that project into the range along the walls or down the middle of the range, must have their facing sides (sides nearest shooter) protected with soft timber. This prevents backplash and the 'reflection' of shots back to the shooter.

Backplate

This area is subjected to more than random shots and will usually be hit with a direct shot at steep angles. Since there is not sustained damage in a concentrated area, the surface need only stop no more than 2 or 3 bullets in any one spot

Acceptable surfaces for the Backplate:

- Smooth Concrete blocks covered with 25mm of softwood
- 4mm sheet steel covered with 25mm of softwood
- Any other method demonstrated and documented to be equally as effective

Bullet Catcher

This area will be subjected to sustained impact in a concentrated area. It requires special construction to ensure the capture of the bullet.

A number of devices have been developed that are suitable for this requirement.

- Sand supported by timber boxing
- Sheet steel deflectors
- Wooden blocks
- Bullet traps that contain the bullet and fragments within itself
- Proprietary supplied bullet catchers

Points to note:

This area of the range is the greatest generator of lead dust. The smashing of the bullet into and through bullet catching material scrapes off significant quantities of lead particles. The best types

of bullet catchers are those that are easily maintained and require the minimum of protective equipment to clean. ie, produce a minimum of lead dust.

The cleaning and maintaining of bullet catchers and the rifle range in general is outlined in Lead - Recommended Cleanup Procedures on Page 30.

Ceiling Protection

The case of ceiling protection can be approached in a variety of ways. The priority is to prevent direct shots and ricochets from exiting the range. The ceiling invariably is the 'weakest wall' of a range. Ranges that are built beneath buildings have a requirement to prevent shots going through the floor into the spaces above. Corrugated iron sheet by itself is not adequate. We control this by having strict rules on when the bolt of a rifle can be closed, i.e. only pointed directly down at the target area.

Bullet Catchers

A form of bullet catcher must be provided over the full width and height as required. It may consist of timber, dense rubber screens, sand or fine soil, free from hard lumps and stones. Alternatively proprietary steel bullet traps with baffles may be used provided all risk of splash back to shooters, arising from such devices, is eliminated.

Regular maintenance needs to be carried out to ensure the correct slope is maintained.

Ricochet will rarely occur with bullets hitting soft sand at angles greater than 30° from the horizontal. Note here the mention of soft sand. The criteria for the rest of the stop butt being a penetrable target implies that it may be clay or similar penetrable material.

Range Access during Shooting

It is necessary to ensure that access to the range in front of the firing points and within the range safety area is eliminated while shooting is in progress.

Emergency exit doors need to be only accessible from inside the range.

It is important that any locking mechanism must be able to be overridden to ensure easy exit from the range in an emergency.

Regular Checking of Range

A range should be regularly checked against the "No Danger Area" range criteria. Any aspect that does not conform to the criteria shall be rectified immediately before shooting can recommence.

A list of critical aspects of the Range should be made and inserted in the Range Operation Manual. A check against this list should be undertaken at the end of the season and about midway through the season. This will ensure maintenance is done prior to the next season and the midway check ensures the range is maintaining its integrity.

Ammunition distribution

Ammunition is only distributed by the duty officer on the night and is recorded in the range log, anyone who is not a member is not allowed to acquire ammunition it is delivered to the firing point by either the duty officer, range officer or chaperone.

Members under 18 years old may purchase ammo BUT the ammunition is kept within the office under the care of the duty officer and as with non-experienced shooters it will be delivered to the firing point by either the duty officer or range officer

Non-Experienced shooters

At no time will any non-experienced shooter will be allowed on the range alone, when a new member joins the club they are chaperoned by an experienced member of the club.

First Aid

The minimum First Aid requirements for acceptable Range Operation are:

- A complete and current First Aid Kit within the range building or the immediate environs.

Accident / Incident Reporting Notebook

ALL items that are taken from the kit to use for ANY accident or incident MUST be written in the notebook. Note the name of the victim, the name of the person who removed the items, date and time, accident / incident description, what action was taken, what items were used, date any items replaced.

Important

The purpose of the notebook is to log accidents / incidents and any use of the kit. It is necessary to document this information so that a reliable log of events can be shown to have occurred. This will also assist the shooting fraternity in demonstrating that shooting is a safe sport. Please, do not sweep incidents and accidents under the carpet. The practice of safe shooting will never be improved if events are not recorded, analysed and acted upon. The “fact” that GSBRC LBG has difficulty recalling any firearm injury accident within any of its Club’s ranges attests to a safety record second to none. Whether this “fact” is true is unknown. The fact is, GSBRC LBG has received no reports. Nevertheless complacency must never creep into the sport and care and attention must be exercised at all times. A First Aid kit will ensure that safety is at the forefront of Club operations. Please play your part.

Shooting Accident Reporting Procedure

If an incident occurs over and above what could be classed as a “non shooting” accident [cut finger or grazes etc.] but is DIRECTLY related to firearms or shooting AND causes an injury to any person then the following SHALL occur:

1. Carry out recommended First Aid procedures on the victim
2. Notify Accident and Emergency services as necessary
3. Ensure the victim is adequately cared for. [Over care is preferable to under care]
4. Notify and send completed Incident Sheet to the Company Secretary, GSBRC LBG, within 7 days of the incident.

Recommended First Aid Kit

A First Aid Kit specifically designed to provide for firearm accidents is listed below.

A kit that meets this minimum shall be installed in every GSBRC LBG affiliated range.

- Wound dressings [size] [2]
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- Crepe bandage 50mm wide [2]
- Roll of adhesive tape [1]
- Triangular bandages [2]
- Medical gloves [3 pair - 1x small 1x medium 1x large]
- Resuscitation mask [1]
- Box of sticky plasters [Assorted sizes][1 packet]
- Forceps [1]
- Hepatitis / HIV warning sign [1]
- First Aid Book [St John or Red Cross] [1]
- Notebook and pen to note accident and action taken
- Quick Reference Chart

The First Aid Kit is to be kept in a handy place in full view of range users, either in the range or in the social area.

Range Officer Duty

The duty Range officer has various responsibilities including the following

- Safety of the members while shooting is in progress
- Reacting to any requests from shooters currently on the range
- Deal with any accidents on the range during the firing detail
- Ensure that the range is clear and safe before and after the detail

Range Procedures

Setting up

When the range has been opened it is essential that the lights that illuminate the targets are switched on with enough time to warm up before the first shooting details, before the first detail commences the extractor fan at the far end of the range must be turned on so that disturbed air is removed from the end of the range.

A collection pot for empty cartridges should also be placed on the table at the rear of the range so that spent bullets can be placed in there by the shooters after the detail.

Start of a detail

The Range Officer will have the prepared cards from the Club office and read out who is on which Firing point and shooters will be able to place their equipment on the Firing Point they have been assigned for that detail. No Rifles should be placed on the Firing Point while there is anyone 'down range' but they can be left there from the previous detail. Shooters should not be on the Firing point while anyone is 'down range'.

When the targets have been placed at the Target area of the range and all range personnel are behind the firing line shooters can get down and prepare to shoot, the rifles must stay on the mat until the 'Red Light' has been switched off.

The Range Officer will say the following

1. Is there anyone who is not ready?
 - a. As long as everyone is ready they will switch the 'Red Light' off
 - b. If someone is not ready they will wait for them to be ready
2. You may now remove your Breach Flags, load your rifles and carry on.

When the last person has finished firing the Range Officer will switch the 'Red Light' on and check all Rifles to ensure they are 'Safe' (Breach flag inserted or Bolt removed) and then will be allow all shooters to leave the range, if they are on the next detail they may leave their rifle on the mat ready for the next detail but must NOT touch it during the detail change over unless permission has been granted by the Range officer

Possible Issues during the shooting detail and resolutions

Missfire

It is rare that there is an issue that requires the Range Officer to intervene during the detail but sometimes it can't be avoided.

The most common issue when a detail is in progress is a 'Missfire' (the trigger is pulled and the firing pin strikes the round but it doesn't go off) in this scenario the shooter is required to leave the rifle pointed down range at the target and not open the bolt for a period of 1 minute and then open it slowly as a slow burn could have occurred. Once the round has been safely removed from the rifle there are 2 options

1. Re-insert the round and try to fire it for a second time
Or
2. Deconstruct the round disposing of each part properly

Power Outage on the Range

The range officer will call a ceasefire and request all bolts are opened, he will have a torch available and will be able to check all rifles are 'Safe' with the breach flags in or Bolts removed. The fault will be investigated and resolved ready to resume the detail.