$4.95

The CMP Rifle Instruction Guide

A Manual of Instruction for Rifle Shooters and Coaches

CMP Shooter's Journal

Date & Time	Location	Rifle Ammunition	Training/Competition
18 Jan 06	OTC-CO Springs	RWS	JROTC Regional

Scores-Prone	Scores-Standing	Scores-Kneeling	Total	Sight Changes
98	91	96	285	Kn to Pr Up/Dn 2 L/R 4 Pr to St Up/Dn 5 L/R 2 St to Kn Up/Dn 0 L/R 2

What I Learned: Lighting conditions were brighter than my home range. Next time I want to bring a hat to shade my rear aperature. Single bull targets were used.

Problems to Solve: Need to practice with single bull targets and brighter lighting conditions.

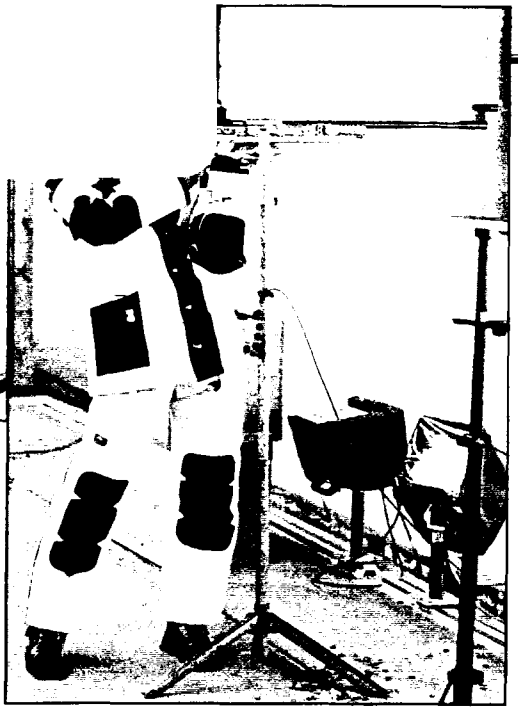
Date & Time	Location	Rifle Ammunition	Training/Competition
19 Jan 06	OTC-CO Springs	RWS	JROTC Regional

Scores-Prone	Scores-Standing	Scores-Kneeling	Total	Sight Changes
			581	Kn to Pr Up/Dn 1 L/R 1 Pr to St Up/Dn 0 L/R 1 St to Kn Up/Dn 0 L/R 0

CAMP FOLEY #5
9303 Father Foley Drive
Pine River MN 56474

...raced myself better today with ...lso helped me see better. I used ... minutes left at the end of ...

...olong. I want to change the ... and see if it helps with my ...



The *CMP Rifle Instruction Guide* provides shooters and coaches with the knowledge and instruction they need for successful participation in three-position rifle target competitions with sporter or precision class air rifles, smallbore rifles or BB guns.

The CMP Rifle Instruction Guide

By Gary Anderson, Director of Civilian Marksmanship

Published by the
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About the Author

Gary Anderson was appointed as the Director of Civilian Marksmanship in 1999. He is a Vice President of the world governing body of shooting, the International Shooting Sport Federation; he was first elected to this position in 1990. He also is a member of the board of directors of USA Shooting, the national governing body of Olympic shooting. Prior to becoming the DCM, Anderson was the Shooting Competition Manger for the 1996 Olympic Games and, prior to that, employed in other shooting sports management positions. During a professional career that frequently focused on juniors and teaching marksmanship, he developed many rifle marksmanship training programs that are widely used in the U. S. and other countries. During his competitive shooting career, Anderson won two Olympic gold medals, seven individual World Championships and 16 individual national championships. While serving as the DCM, he has developed, written and taught numerous rifle marksmanship training programs for shooting coaches and instructors that have been incorporated into CMP training courses and published training materials such as this ***CMP Rifle Instruction Guide***.

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How to Use this Guide

The material in this ***CMP Rifle Instruction Guide*** originally appeared in the CMP publication for junior leaders and coaches, ***On the Mark***, as a series of columns titled, ***Instructor's Notebook, Teaching Rifle Marksmanship***. ***Instructor's Notebook*** topics were selected to cover all of the key topics that a rifle instructor or coach would need to master to effectively teach three-position rifle shooting to new junior or beginning shooters. The original ***Instructor's Notebook*** articles were addressed directly to instructors and coaches. That material has now been adapted for a wider audience of both instructors and coaches as well as junior and adult shooters. Topics here are arranged in the general order in which they should be taught. Instructors and coaches can use this information to help develop their own lesson plans for their new shooters or they can have them review the material in home study sessions to supplement their instruction. Teaching points and detailed information in this guide were selected for inclusion because they represent a consensus among leading rifle coaches and shooters on what should be taught to new shooters and, in many cases, how it should be taught. In representing this material as the best current rifle marksmanship instruction, the CMP also acknowledges that even better methods are continually being developed by shooting coaches. Rifle coaches and shooters who discover particularly effective new ways to teach or who encounter special challenges in teaching are invited to communicate those experiences to the CMP so that they can be used to improve future rifle training materials. Comments or questions on rifle instruction should be addressed to CMP Programs at programs@odcmp.com.

What is Rifle Marksmanship

What are the Values of Rifle Marksmanship

This first section of the ***CMP Rifle Instruction Guide*** seeks to begin to answer some fundamental questions about the sport of target rifle shooting. Before shooting coaches and new shooters begin their odyssey as participants in the sport of rifle shooting, it can be helpful to understand something about it and the benefits it offers. Any initial understanding will only be a starting point, however. As coaches and shooters gain their own experiences through teaching and striving to master the challenges of rifle marksmanship they will find their own understandings and values that we hope will lead them to become life-long participants in our great sport.

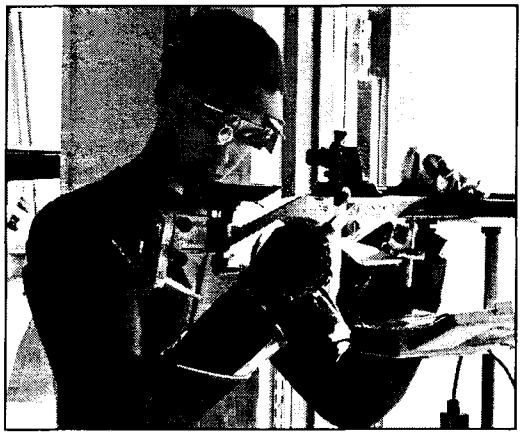
WHAT IS RIFLE MARKSMANSHIP?

- **A COMPLEX SPORT SKILL where rifles are aimed, controlled and fired at targets**
- **A SPORT with a military heritage**
- **A popular OLYMPIC SPORT practiced all over the world**
- **A sport that DEVELOPS control, discipline, concentration and extreme precision**
- **An enjoyable, LIFETIME recreation and competition activity**

- **Complex Sport Skill**. Rifle marksmanship is concerned with precision and accuracy while aiming, controlling and firing rifles at difficult targets. A high degree of visual-muscular-nervous system coordination must be developed through practice to do this well and with consistency.
- **Sport with a Military Heritage**. The sport of shooting is similar to most other sports in that it began as a skill humans needed for survival or military purposes. Accurate marksmanship continues to be a skill that is valued for military purposes today.
- **Olympic Sport**. The sport of shooting enjoys the prestige and recognition that goes with its status as an Olympic sport. 150 different countries practice organized forms of the Olympic shooting events and belong to the world governing body of shooting, the International Shooting Sport Federation. Shooting is probably the third or fourth most popular participation sport in the world.
- **Develops Control, Discipline, Concentration and Precision**. These are special qualities that make marksmanship unique and that also benefit its participants in other ways.
- **Lifetime Sport**. People who participate in target shooting on a recreational or competitive basis range from 4-H BB gun competitors as young as nine or ten to people in their 70s and 80s. Shooting is a lifetime participation sport.

The Qualities and Values of Marksmanship

- Safety—one of the safest of all sports
- Open to all--gender, size, speed or strength do not determine success
- Practice, not ability, makes the difference
- Teaches life skills—shooters learn discipline, responsibility, rewards of hard work
- Teaches control, respect for others
- It's fun—scoring a ten is a big thrill!



The Qualities and Values of Marksmanship:

The "qualities" and "values" that characterize marksmanship are positive and benefit everyone who participates. These qualities include such things as:

- **Safety**: Statistics compiled by the National Safety Council, National Shooting Sports Foundation, the Civilian Marksmanship Program and other organizations confirm that rifle and target shooting are among the safest of all sports. Shooters learn safety lessons that last a lifetime.
- **Open to All**. Shooting is a sport where boys and girls, men and women compete together on an equal basis. It is also a sport where physical size, speed or strength has almost nothing to do with chances for ultimate success. Champion shooters represent both sexes and people with many different physical characteristics. In addition, shooting is a sport that is open to participation by disabled persons.
- **Practice, Not Ability**. Shooting is a sport where only practice can develop the motor skills, muscular coordination and concentration abilities needed to consistently score tens. So-called natural ability that is so vital in many sports makes very little difference in shooting.
- **Teaches Life Skills**. One of the real benefits of the marksmanship experience is that it teaches valuable life skills that can help those who participate in shooting throughout their lives. Shooters learn discipline, self-control, concentration, goal setting and teamwork.
- **Teaches Control and Respect for Others**. Rifle marksmanship is unique in that it does not require aggressive actions against opponents. In target shooting, the shooter's competitive energies must be directed towards an inanimate target that is downrange and not directly against an opponent. This allows target shooting participants to learn special qualities of self-control and emotional-control as well as a unique respect for their opponents.
- **It's Fun**. One of the most important reasons people participate in any sport is that they enjoy the sport. People who participate in shooting do it because it really is fun.

Principles of Rifle Marksmanship Instruction

This section of the ***CMP Rifle Instruction Guide*** describes the fundamental principles of instruction that should be followed in teaching rifle marksmanship skills to new and beginning shooters. This section is primarily for coaches and instructors who need to understand these principles in order to teach marksmanship more effectively. These principles and guidelines evolved from the experiences of many shooting coaches who worked to develop the best and most effective ways to teach target skills. If instructors and coaches apply these principles in their work with beginning and new shooters, those shooters will learn rifle target skills more quickly, enjoy their experience more and, in the end, be more likely to remain in shooting as life-long participants.

Principles of Rifle Marksmanship Instruction—A Summary:

1. Teach Safety first, last and always.
2. Start with the appropriate rifle.
3. Use rifles with the correct stock length.
4. Use targets large enough to contain all properly executed shots.
5. Recognize that shooting is a motor control, skill sport where interest and work ethic affect ultimate success far more than natural ability.
6. Present shooting as a sport; take advantage of the fact that shooting is an Olympic sport.
7. Introduce new positions and techniques by presenting the fewest teaching points needed to get students into fundamentally sound, basic positions.
8. Use the "step method" to teach new shooting positions. Teach the position without the rifle before adding the rifle and sling to the position.
9. Refine and improve positions by introducing one new teaching point at a time—practice and perfect new teaching points before introducing another.
10. Apply corrections calmly and quietly—give positive feedback with clear, consistent messages.
11. Keep the teaching and shooting environment positive, supportive, accepting and enjoyable for all participants.
12. New shooters start at different score levels and progress at different rates.
13. Shooting ability is developed through many positive repetitions, not constant changes and experimenting.
14. Keep shooting ranges attractive and clean—make sure they convey the images of sport and the excitement of shooting.
15. Continue to develop your credibility and effectiveness as an instructor or coach through study and experience.

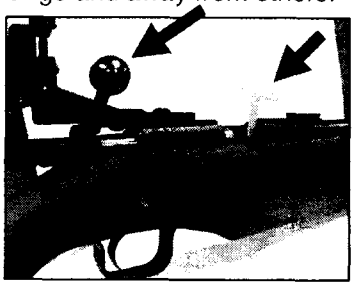
Principle No. 1

Teach Safety First, Last and Always

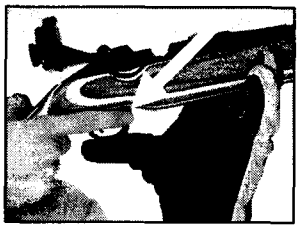
Safety instruction and discipline must be a continuing keystone of all shooting activities. Supervised target shooting has the best safety record of all active youth sports. Target shooting is extraordinarily safe because it has safety rules that really work and are taught and enforced during all shooting activities. Effective safety instruction follows these guidelines:

- Keep safety instruction simple, not complex—gun safety instruction is more memorable and effective when it is short, simple and performance based.
- Focus on the three rules of safe gun handling that stress a) muzzle control, b) open actions except when firing and c) keeping fingers off of the trigger except when firing.
- Critical performance factors for new shooters are a) do they practice muzzle control, b) do they keep rifle actions open except when firing and c) do index fingers stay off of the triggers until they start to aim?
- Make sure every range-firing activity includes an appropriate emphasis on safety.
- Remember that telling new shooters to "treat every gun as if it were loaded" does not tell them HOW to do that.
- Always use range commands to control range firing—the discipline of using commands reinforces the discipline of gun safety.
- Apply the same safety rules for all youth shooting, regardless of whether BB guns, air, .22 cal. or high-power rifles are used.
- Expect your students to develop and apply self-discipline that assures safe gun handling at all times.

The first critical performance factor in safe gun handling is keeping the muzzle under control at all times—always keep it pointed up or down range and away from others.



A second performance factor is to keep actions open except when shooting. Use CBI/ECIs to confirm open actions.



A third safety performance factor is keeping trigger fingers outside the trigger guard until aiming begins.

Principle No. 2

Start with the most appropriate type of rifle.

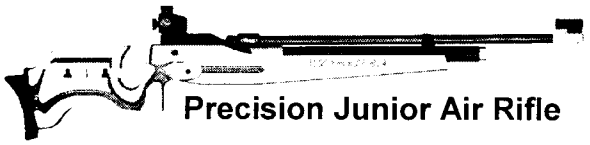
The rifle used to start any new shooter in target shooting must be appropriate for the age, physical size and maturity of that individual. Rifles used to teach marksmanship include BB guns, light to medium weight air rifles, medium to heavy weight smallbore rifles and medium to heavy weight highpower service or match rifles. Starting with the right rifle can make a tremendous difference in how fast they learn and whether the target shooting experience is positive. Here are some guidelines to follow in selecting the best type of rifle an individual or group of new shooters should use.

BB Gun

Weight: 3.0-3.5 pounds. Accuracy: Suitable for beginning and some later intermediate-level juniors. BB guns are suitable for 10-12 year-old youth. BB guns are the most appropriate gun to use to teach basic marksmanship skills to this age group and even to introduce them to rifle competitions.

Sporter Air Rifle

Weight: 5.5-7.0 pounds. Accuracy: Suitable for beginning and intermediate-level juniors. Sporter air rifles are especially suitable for graduating target rifle shooting to 12-15 year-old youth. Sporter air rifles can produce 10-ring accuracy on the 10-meter air rifle competition target and can be used by youth of high school age in rifle competitions.



Precision Junior Air Rifle

Weight: 8.0-9.0 pounds. Accuracy: Suitable for intermediate and advanced competitions. Precision junior air rifles are suitable for 12-18 year-old youth. These rifles are extremely accurate and can be used in competitions by school-age youth until their physical maturity warrants a full-sized air or smallbore rifle.

Junior Smallbore Rifle

Weight: 7.0 pounds. Accuracy: Varies, generally suitable for beginning and intermediate competitions. Junior smallbore rifles come in a variety of sizes that make them suitable for youth in ages 12-18, depending upon the size of the rifle.

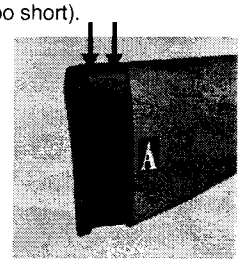
It is most always best for new junior shooters to learn basic target rifle shooting using an appropriate junior target rifle of the type described above. Only after learning good positions and sound techniques and developing sufficient size and maturity should the junior shooter advancing to a full-sized, full-featured top-of-the-line target rifle.

Principle No. 3

Use a rifle with the correct stock length

After selecting an appropriate type of rifle with a weight and overall size that the young shooter can handle comfortably, it is still critically important to have a rifle with the correct length stock. When holding the rifle in position, the shooter must be able to comfortably reach the pistol grip and trigger (stock is not too long), but must not have the sights located right in front if the eye (stock too short).

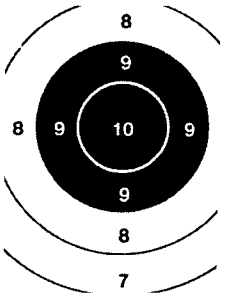
To make a simple stock length check, have the shooter place the butt of the rifle in the crook of the arm. If the hand comfortably reaches the pistol grip, the stock length is approximately correct. Rifles used for new shooter instruction should have a means of adjusting stock length such as the removable spacers shown on the right.

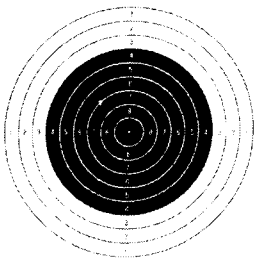


Principle No. 4

Use targets large enough to contain all properly executed shots.

One of the most rewarding principles of marksmanship instruction is to start new shooters with big targets—targets that are especially designed for use by new shooters. The best example of this type of target is the BMC (Basic Marksmanship Course) target for 10-meter air rifle or 50-foot smallbore instruction.





The BMC target (left) has scoring rings much larger than those on the regular competition target (right). Starting beginners on targets with large scoring rings assures that all properly executed shots will be hits rather than misses. When shot groups fired by new shooters shrink so that all shots fit within the 8 or 9 rings on the BMC target, it is time for them to "graduate" to the regular competition target.

Principle No. 5

Recognize that shooting is a motor control, skill sport where interest and work ethic affect ultimate success far more than natural ability.

How well a new shooter does when they fire their first targets has almost nothing to say about how good a shooter that person can become. In other words, innate natural ability is not a decisive factor in target shooting. Accurate rifle shooting is a complex motor skill that can be developed only through thousands and thousands of correctly executed repetitions. Every new shooter needs to understand that their interest in shooting and their motivation to practice will pay off. Shooting is a sport where how hard a person practices really does make a difference. Conversely, new shooters who do poorly on their first targets must never think this means they have no talent for shooting. Instead, they must continue to practice what they were taught, knowing that shooting is one sport where how hard they work really does determine how good a shooter they ultimately will become.

Principle No. 6

Present shooting as a sport—take advantage of the fact that shooting is an Olympic sport.

Over and over again, youth shooting participants tell us one of the most important reasons they became excited about trying shooting is because they learned it is an Olympic sport. When introducing shooting to a new groups of youth, tell them about shooting's connections with the Olympic Games. Here are some facts to emphasize:

- Shooting was in the first Olympic Games in 1896 and has been on every Olympic program since then except two (1904, 1928).
- There are 15 gold medal shooting events in the 2008 Olympic Games in Beijing.
- In the 2004 Olympics, only athletics (T&F) and swimming had more participating countries than shooting. With 103 participating countries, shooting was the third most popular sport in the Games.

USA Olympic medalists in the 2004 Athens Olympics included Matt Emmons (gold, 50m prone rifle), Kim Rhode (gold, double trap) and Mike Anti (right, silver, 50m three-position rifle) .

New shooters will also be interested in learning that shooting is a popular high school and college sport. Rifle is a recognized NCAA sport where junior shooters can earn athletic scholarships.

Principle No. 7

Introduce new positions and techniques by presenting the fewest teaching points needed to get students into basic sound positions.

The best and most effective instruction is almost always the simplest instruction. When introducing a new shooting position or technique, do not teach a comprehensive "clinic" on that position. Instead, teach only the essential points necessary to get new shooters to assume that position or perform the new technique. In the standing position illustrated below, five teaching points needed to get a new shooter into a very effective standing position are shown. All marksmanship instruction must be just as clear and simple.

5. Place the rifle "up" in the shoulder so the head remains reasonably erect.

4. Place the elbow of the support arm directly under the rifle—relax it onto the body.

3. Turn the hips 90 degrees away from the target.

2. Keep both legs straight and relaxed.

1. Start with the feet shoulder-width apart.

Principle No. 8

Use the "step method" to teach new shooting positions. Teach the position without the rifle before adding the rifle and sling to the position.

The time-proven and best method of teaching a new firing position to a beginning shooter is to a) teach the position without the rifle, b) teach the position with the rifle, but without the sling and c) in the sling positions, add the sling only after the body and rifle position is correct.

Principle No. 9

Refine and improve positions by introducing one new teaching point at a time—practice and perfect new teaching points before introducing another.

A fundamental rule is that shooters can only focus on one new teaching point at a time. After teaching a new shooting position, have the shooter practice that position until they comfortably repeat it and begin to produce improved scores. At this point, start to refine the position by introducing additional teaching points, one-at-a-time. For example, in the standing position, an instructor might teach these additional points, one-at-a-time, over a period of several weeks, while making sure each new skill is well-practiced before introducing another new teaching point.

- Confirm that the correct right hand position is used to support the rifle—experiment with higher and lower hand positions to determine the optimum position for the support hand.
- Check and control the balance before each shot.
- Check and control body relaxation before each shot.
- Focus intense concentration on the sight picture.
- Coordinate trigger release with the best hold, etc.

Principle No. 10

Apply corrections calmly and quietly—give positive feedback with clear, consistent messages.

There is nothing that will discourage an enthusiastic new shooter more quickly than a coach or instructor who yells negative corrections at him/her. Successful shooting requires a high degree of self-control—instructors teach self-control first by always remaining under control themselves. When you need to correct something a new shooter is doing wrong, do it calmly and quietly. Feedback to students should be positive—stress the correct way to do something—repeating the error with a stern "do not" reinforces the error and does not assure that the student knows what to do.

Principle No. 11

Keep the teaching and shooting environment positive, supportive, accepting and enjoyable for all participants.

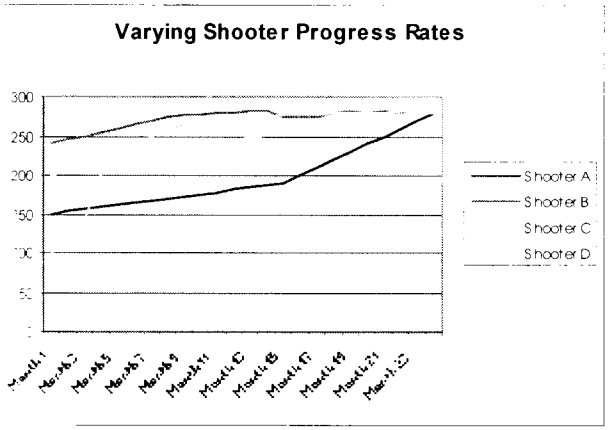
The progress that new shooters make and the rewards they receive are determined in large measure by the teaching and shooting environment. To evaluate the environment offered by your program, ask these questions:

- Is every shooter in your program accepted as a person of worth who has real potential to advance in the shooting sports?
- Are shooters encouraged to have fun?
- Are shooters allowed to set their own goals and progress at their own rate or are they pushed to meet the expectations of parents or coaches?
- Are shooters encouraged to learn and practice so that they can develop their skills? Is instruction readily available when students are ready for it?
- Is the emphasis on the shooters and their growth or on winning?

Principle No. 12

New shooters start at different score levels and progress at different rates.

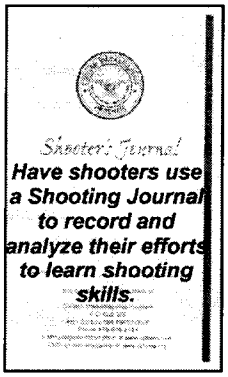
A shooter who does very well in the first firing exercises must still practice very hard to reach championship levels. A shooter who starts poorly may simply have not yet mastered what the instructor taught. Some shooters improve quickly. Some advance in steps. Some improve gradually and some are late bloomers. Recognize these varying rates of shooter progress and encourage all shooters to continue to develop their skills.



Principle No. 13

Shooting ability is developed through many positive repetitions, not constant changes and experimenting.

The best way to become a skilled marksman is to learn good basic skills and then to repeat them in practice until they are mastered. A positive repetition is firing a shot correctly in a correct shooting position. Good positions and skills must be refined and perfected, but after that, avoid the temptation to change and experiment whenever a bad score is fired. Bad scores usually come because a position or skill was not properly executed, not because it is wrong.



Principle No. 14

Keep shooting ranges attractive and clean—make sure they convey the images of sport and the excitement of shooting.

One of the best ways to convince new shooters that shooting is the right sport for them is to make sure shooting takes place in an attractive setting. The environment provided by the range and classroom is critical. Use these questions to evaluate the environment provided by your shooting range:

- Is the range safe—is access controlled—is the backstop effective?
- Is the range clean, attractively finished (a bright, fresh coat of paint can do wonders for old ranges) and well-lighted?
- Is the range healthy—is all lead contained in the backstop—is it properly ventilated—are proper hygiene measures enforced?
- What messages about shooting does the range convey—do the signs, posters and photos on the walls portray shooting as an exciting, engaging sport?
- Does the range look like a sports facility?

Principle No. 15

Coaches: Continue to develop your credibility and effectiveness through study and experience.

No one starts out as a great rifle instructor and coach. Many people, nevertheless, become great coaches because they continue to learn more and more about the shooting sports. They understand that every time they work with new or experienced shooters they have an opportunity to grow and become more effective. Credibility and effectiveness as a marksmanship coach comes from knowledge and experience. Here are some things coaches can do to become a more credible, effective shooting instructor and coach:

- Attend a coach-training course.
- Get to know other more experienced coaches--ask questions—strive to learn from them.
- Develop a shooting library—persistently study the books and guides that are now available.
- Use the curriculum and training materials that are now available.
- Learn from your shooters as you work with them to answer their questions and solve their problems.
- Go to matches where champion shooters are present—study, photograph and learn from them.
- Develop a mindset where you always seek to learn, improve and grow.

Gun Safety and Safe Range Operations

This section of the ***CMP Rifle Instructor Guide*** describes the principles of gun safety and safe range operations. There is no more important lesson for new shooters than learning how to handle guns safely. The sport of target rifle shooting is one of the safest of all sports, but it achieves its virtually perfect safety record because shooting has developed and rigorously enforces an extremely effective set of safety rules. These rules are taught in the first instruction presented to any new group of shooters and continue to be emphasized and enforced in every range firing session after that. The procedures followed by Range Officers in operating a range are also designed to assure the absolute safety of everyone on the range before, during and after firing. Everyone who handles rifles or who does any live firing on a range must be thoroughly trained in *Gun Safety and Safe Range Operations* before beginning any range activities.

RULES FOR SAFE GUN HANDLING:

1. **MUZZLE.** Always keep gun muzzles pointed in a safe direction. Gun muzzles should never be pointed at other persons under any circumstances. On a range, the safest directions to point a gun muzzle are usually up or downrange towards the target.

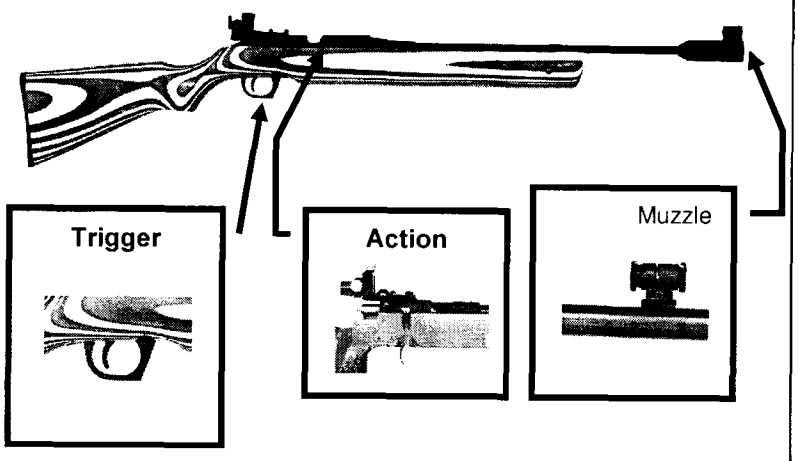
2. **RIFLE ACTION.** When handling any rifle or firearm, the action must be open. Gun actions must remain open except when the gun is on the firing line and the preparation period or the commands to LOAD and START are given. When shooting is finished or the rifle is placed down to take a break, the action must be open and the rifle must be unloaded, even when the gun is on the firing line. On target ranges, CBIs (clear barrel indicators) or ECIs (empty chamber indicators) are used to confirm that actions are open and the rifles are unloaded.

3. **TRIGGER.** Keep your finger off of the trigger until after placing the gun in the shooting position and preparing to fire a shot. It is especially important to keep the finger outside of the trigger guard when loading the gun and placing it in the shooting position.

Guidelines for Teaching Safety:

- Keep safety instruction keyed to gun safety performance check-points: Muzzle-Action-Trigger.
- All safety instruction must teach how to handle a gun safety—instructing new shooters to "treat every gun as if it were loaded" does not tell them how to handle a gun. Muzzle-Action-Trigger teaches them how to handle a gun.
- Safety comes from developing the self-discipline to always think about safety and to have a constant awareness of Muzzle-Action-Trigger.
- The best way to develop the self-discipline and awareness needed to handle guns safely is to practice the safety rules during dry and live firing activities on the range.
- Keep safety instruction simple, not complex. Make sure all training and range-firing activities include safety instruction or a safety emphasis.
- Always have a range officer who uses proper range commands in control of all range firing.

Before handling any gun, know Muzzle-Action-Trigger



KEY GUN SAFETY CHECK-POINTS

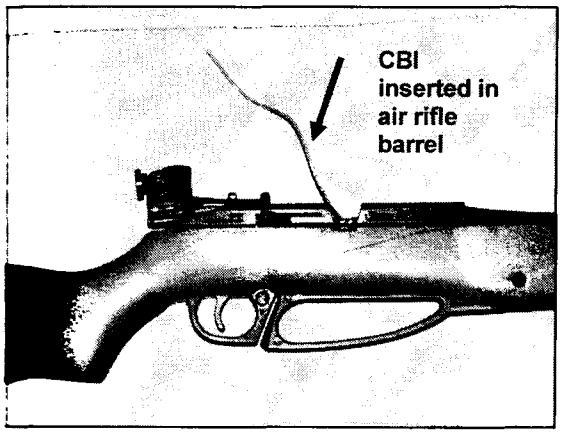
The First Lesson - Learn the Rules for Safe Gun Handling

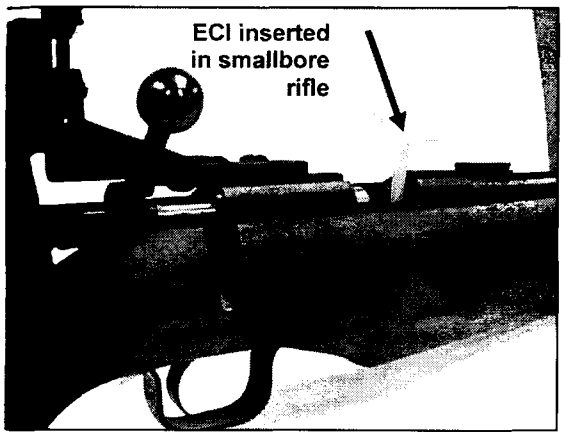
The first lesson must present the rules for safe gun handling. These are universal rules that everyone must follow whenever they handle any gun in any circumstances.

- Learn to identify the three basic parts of a gun that control safety, the Muzzle, Action and Trigger.
- Learn Rule 1 - **Always Point the Muzzle in a Safe Direction**. The first thing that must be done to assure safety when picking up or handling a gun is to **point the muzzle in a safe direction**. What does "safe direction" mean at your range? All shooters must demonstrate muzzle awareness and MUZZLE CONTROL at all times when handling guns.
- Learn Rule 2 - **Actions Open**. Anyone who picks up or receives a gun must first control the direction the muzzle points and **then check the action**, opening it if it is closed. Rifle actions must always remain open until the rifle is taken to the firing line and the Range Officer gives instructions to begin a preparation period or the commands to LOAD and START. Rifle actions must be opened and remain open after a firing exercise is completed.
- Learn Rule 3 - **Keep the Finger Off the Trigger Until Actually Firing**. The index finger must remain outside of the trigger guard and off of the trigger until the shooter is ready to fire at a target.

SAFETY FLAGS

- a- rifle target shooting, safety flags or Clear Barrel -d cators (CBI) are used in to show that actions are :ce- and no pellets are loaded in the barrels. Safety -ags to confirm that smallbore or highpower rifle ac- -ns are open with no cartridges in the chambers are -a ed Empty Chamber Indicators (ECI). CBIs for air -fles are made by cutting lengths of weed trimmer cord -o that 3-4" protrudes from the breech and muzzle -nds of the barrel when fully inserted. ECIs are ob--a ned from commercial sources. **Every rifle on a -ange must have a CBI or ECI inserted in it at all -mes except when the rifle is on the firing line dur--ng a preparation or firing period.**





- ECIs must be reinserted immediately after the last -- a firing exercise is fired.

SAFE LOADING FOR AIR RIFLES

-- assure the highest degree of safety while loading an -- fle. follow these steps:

- Open the bolt or action first. Do not charge air or gas with a pellet in the barrel.
- Charge the gas mechanism or operate the charg-ng ever (pneumatic air rifles). Pay special atten-- to keeping the muzzle pointed up or down-range while operating pneumatic air rifle charging -vers.
- Place the pellet on the loading port (Daisy sporter -- fles) or insert the pellet in the breech end of -- bore.
- Close the bolt or action.

THE RANGE OFFICER

A Range Officer controls all range firing. The Range Officer may be a coach, assistant coach or someone specifically designated as a Range Officer. The Range Officer is in charge of all activities on the range.

FIRING PROCEDURES AND COMMANDS

The Range Officer begins each range firing activity by instructing shooters to move their equipment to the firing line. When rifles are brought to the firing line, muzzles must be pointed up or down range, actions must be open and CBI/ECIs must be inserted in the rifles. After shooters have their equipment on the firing line, the Range Officer will give a short time period to prepare for firing. After the Range Officer authorizes shooters to begin preparation for firing, they may remove the CBI/ECIs from their rifles. When shooters are in their shooting positions and are ready, the range officer uses specific commands to start and stop firing.

- **LOAD**. No one may load any rifle until the range officer gives the command **LOAD**. Then shooters may cock their rifles and insert a pellet or cartridge in them. It is a serious offense to load a rifle before the command **LOAD** is given.
- **START**. The next command tells shooters they can begin to aim and fire at their targets. No one may fire a shot until the command **START** is given, even if the command **LOAD** has been given. After the command **START**, shooters may continue to load and fire until all shots in that firing exercise are fired. Immediately after firing the last shot in a firing exercise, shooters must open the rifle action and insert a CBI/ECI.
- **STOP**. When shooting is finished, the range officer commands **STOP**. If the command **STOP** is given during firing, all shooters must immediately stop firing, open the actions on their rifles and wait for further instructions. No one is authorized to fire a shot after the command **STOP** is given.
- **UNLOAD**. When the commands **STOP** and **UNLOAD** are given, smallbore and highpower shooters must remove any unfired cartridges and the magazine (if there is one). Air gun shooters who have a loaded gun after the command **STOP** is given must notify the range officer by raising their hand and announcing "***Loaded Rifle***." The Range Officer will then give directions for unloading any loaded rifles.

When firing is complete, the Range Officer checks rifles to be sure they are unloaded with a CBI/ECI inserted. The Range Officer then instructs shooters to change targets or remove equipment from the firing line.

Dry Firing

Dry firing is cocking and releasing the trigger mechanism without charging the gas system (air rifles) or placing a cartridge in the chamber (firearms). Dry firing is the simulated firing of a shot without actually firing a cartridge or releasing a gas charge. Dry firing will not damage most air rifles or firearms and it is an especially effective way to practice. Expect to do lots of dry firing whenever you practice shooting. Dry firing may only be done on a designated firing point and only when authorized by the Range Officer. During regular shooting exercises or competitions, shooters may close their actions and dry fire whenever the Range Officer tells them they may begin preparation for firing or begin a formal "preparation period."

Safety Conditions

During the conduct of range firing activities, there are specific conditions or stages of firing that are controlled by the Range Officer and that shooters need to know and understand:

- **Line is Hot**. When the Range Officer is ready to start a firing exercise and has determined that everyone on the range is in a safe and proper location, he will declare, "the line is hot." No one can go forward of the firing line when the line is hot.
- **Preparation Period**. After the Range Officer declares that the line is hot, he informs shooters they can handle their rifles and instructs them to begin their "preparation" or "preparation period" for the firing exercise that follows. When the Range Officer authorizes "preparation," shooters can remove CBI/ECIs from their rifles, get into their shooting positions, close their rifle actions and dry fire. They may not, however, charge an air rifle or load a pellet or cartridge.
- **Firing Period**. After the preparation period is over, the Range Officer starts the firing period by giving the commands ***LOAD*** and ***START*** (see "Firing Commands" described on previous page).
- **Firing Completed.** Immediately after firing the last shot in a firing exercise, all shooters must open their rifle actions, insert a CBI/ECI and ground their rifle.
- **Grounded Rifle**. To ground a rifle, the action must be open, a CBI/ECI must be inserted and it must be placed on the floor, shooting mat, stool or firing bench. Rifles are normally grounded when they are brought to the firing line and they must be grounded again after a firing exercise is completed. Once a rifle is grounded, a shooter must request permission from the Range Officer before it can again be handled for any purpose.
- **Firing Line is Clear**. When all rifles are grounded on the firing line before or after firing, the Range Officer must check them to be sure all rifles are properly grounded with CBI/ECIs inserted. The Range Officer can then declare that the "line is clear." This means all rifles are grounded and no one is permitted to handle any rifles on the firing line. The line must be clear before anyone can be instructed to go forward and hang, change or retrieve targets.

Other Range Safety Procedures

There are other range safety procedures that new shooters must understand and practice when they participate in range firing activities:

- **TARGETS**. All Targets must be hung in the proper location on a safe backstop. Shooters may fire only at the target designated for them. Shooting at any object on a range besides their own target is strictly forbidden.
- **LOADED RIFLE AFTER STOP COMMAND**. If any shooter has a loaded rifle after the command STOP is given, it must be unloaded immediately. Loaded air rifles require special procedures. A shooter with a loaded air rifle after the STOP command must raise his/her hand and await instructions from the Range Officer. They will normally be instructed to discharge the rifle in the backstop or into a pellet discharge container (PDC).

- **MALFUNCTIONS**. If at any time during a firing exercise, a rifle fails to fire or does not function properly, special procedures must be followed: 1) stay in position and keep the muzzle pointed downrange, 2 raise your hand and 3) wait for a Range Officer to come to you. The Range Officer will give instructions on what to do with the rifle. If the malfunction cannot be corrected, the rifle must be unloaded and a CBI ECI inserted before it is removed from the firing line.
- **GOING DOWNRANGE**. Whenever anyone must go forward of the firing line (downrange) to place or retrieve targets or for any other purpose, all rifles must be grounded with CBI/ECIs inserted. No one may go forward of the firing line until authorized to do so by the Range Officer. No one may handle rifles while anyone is in front of the firing line.
- **PERSONAL HYGIENE**. Lead is a toxic substance that must not be ingested. Medical research confirms that routne hygiene precautions effectively protect the health of individuals who shoot on rifle ranges. The rules are simple: Do not bring any food into the range or consume any food on the range. Do not bring any drinks into the range unless they are bottled and can be closed. Wash your hands after handling air rifle pellets.
- **GUN CASES**. Rifles are often brought to ranges in gun cases. When the Range Officer gives instructions for taking rifles and equipment to the firing line, take the rifle to the firing line in its case. When a rifle is taken from the case, first open the bolt (action) of the rifle. Then remove the rifle from the case with the muzzle pointing down range. insert a CBI/ECI and ground the rifle. After that, remove the case from the firing line. When firing is completed and the Range Officer has authorized removing rifles from the firing line, reverse this procedure.
- **EYE AND HEARING PROTECTION**. Shooters who fire firearms of any type are urged and, on many ranges, required to wear eye and hearing protection. Some air rifle ranges may even require eye protection.

Basic Rifle and Equipment Knowledge

This section of the ***CMP Rifle Instruction Guide*** examines the most important things new shooters must know about their rifles and equipment in order to master gun safety and basic rifle marksmanship positions and techniques. To handle a gun safely, a person must know where the muzzle, action and trigger as well as what their functions are. Before any new shooter can do dry or live firing, they must know how to cock the firing mechanism and how to load and unload the rifle. Proper trigger technique starts with an understanding of basic trigger function. Every shooter must know and understand the different items of equipment that will be used during target rifle shooting activities. It is hardly possible to teach or adjust a firing position or shooting technique without a basic knowledge of the parts of a rifle. This section seeks to provide that basic information.

Ammunition for Target Shooting

A wide variety of ammunition for smallbore rifles, air rifles and BB guns is available, but only certain types of ammunition are suitable for target shooting. When selecting and purchasing ammunition for new target shooters, consider the following:

Smallbore Ammunition:

"Match grade" ammunition is not needed for beginning target shooters, but it is important to obtain ammunition that produces reasonable accuracy. Standard velocity ammunition (velocities under 1100 fps) is usually best for target training.

Air Rifle Pellets:

Pellets used for target training should be flat-head or "wad-cutter" type pellets. Match grade pellets are not required, but standard "training grade" flat-head pellet should be obtained.

BBs

Commercial BBs vary in accuracy capability and it is often necessary to test different brands of BBs to find one that produces consistent accuracy to hit the 9 and 10 rings of the BB target.

How the Rifle is Loaded, Unloaded and Fired

Whether instruction and firing is done with BB guns, pneumatic air rifles, air or CO_2 air rifles or smallbore rifles, the procedure to load, fire and unload the rifle must be understood and practiced by new shooters. New shooters must learn how to load, fire and unload the specific rifles they will use before they fire their first shots in marksmanship training activities.

Smallbore Rifles:

1. Open the action (bolt) to cock the firing mechanism.
2. Insert cartridge in the chamber (breech end of barrel).
3. Close the action (bolt) and prepare to fire.
4. To unload, open the action and pull the bolt back to eject the cartridge.

Air Rifles:

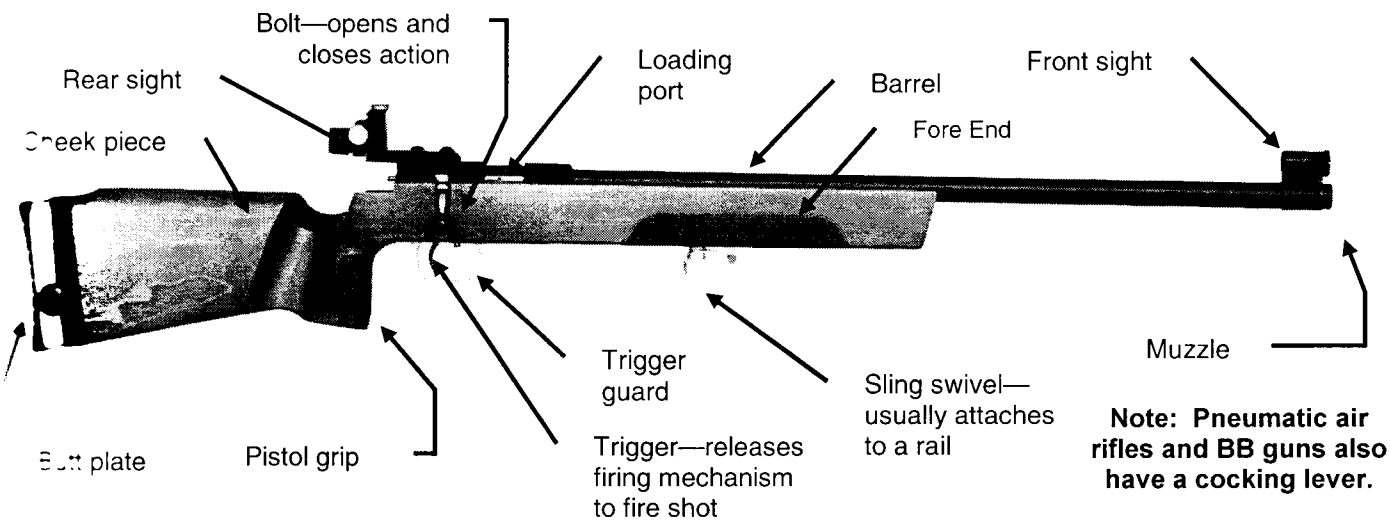
1. Open the action (bolt) or lift the cocking lever.
2. For pneumatic air rifles: operate the charging lever (do not charge air rifles with a pellet in the barrel; insert the pellet after charging).
3. Insert pellet into the breech end of barrel (the skirt of the pellet must be flush with the end of barrel).
4. Close the action (bolt) and prepare to fire.
5. To unload, open the action and await instructions from a range officer. To unload a loaded air rifle, it must be fired into a safe container (pellet discharge container or down range away from a target).

BB Guns (Daisy M499):

1. Open the cocking lever while keeping the muzzle elevated.
2. Drop BB into muzzle; wait until BB is seated, then prepare to fire.
3. To unload, open the cocking lever and await instructions from a range officer. To unload a loaded BB gun, it must be fired into a safe container (pellet discharge container or down range away from a target).

The Most Important Parts of a Target Rifle:

New shooters must learn to identify each of the following rifle parts and their purposes:



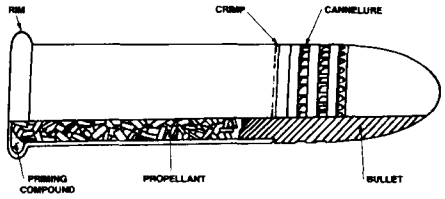
Note: Pneumatic air rifles and BB guns also have a cocking lever.

Basic Rifle and Equipment Knowledge

How a Rifle "Fires" Its Projectile

Beginning rifle shooters do not need a detailed knowledge of interior and exterior ballistics, but they should have a fundamental understanding of how their rifle fires its projectiles. Instructors often have charts or training aids they use to explain how rifles release 'stored energy' when the rifle's trigger is pulled. When this stored energy is released, it propels the projectile through the barrel and towards the target.

- Rimfire cartridges have gunpowder containing stored energy that is released when the firing pin strikes the cartridge rim. This ignites a primer which initiates an explosion releasing the powder's energy to set the bullet in motion.



- Air rifles store energy in the form of compressed air or CO_2 gas. Pulling the trigger starts a sequence of actions that cause a portion of the compressed gas to be released to set the pellet in motion.
- BB guns store energy when the cocking lever compresses a spring in the firing mechanism. When the trigger is pulled, the spring is released to push a piston forward. The piston generates compressed air that propels the BB out of the barrel.

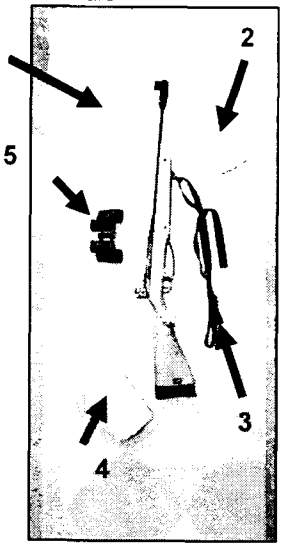
Rifling--How Rifles Achieve Accuracy

Beginning rifle shooters need to understand how the rifles they use are precision instruments capable of a high degree of accuracy that would not be possible without a feature in rifle barrels called rifling. Rifling consists of spiral grooves in rifle and air rifle bores. Use a cleaning rod with a tight fitting patch and small flag fixed to the base of the rod to demonstrate how rifling causes the bullet or pellet to spin. Use a yo-yo or top to demonstrate how spinning objects are more stable. A spinning bullet is also more stable and therefore has accuracy that permits rifle shooters to hit the center of distant, difficult targets.

Shooting Equipment

Beginning rifle instruction can be conducted with a minimum of special equipment, but some items of equipment are required. The equipment items that are required for initial target rifle instruction are:

1. **Shooting Mat**
2. **Glove for support hand**
3. **Sling**
4. **Kneeling roll**
5. **Spotting telescope** (if possible, or binoculars)

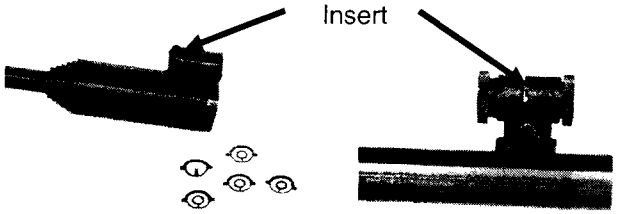


Wearing proper clothing will make the shooting experience more comfortable. Wear regular trousers, not shorts, and a long-sleeved sweatshirt. Comfortable shoes with hard flat soles are recommended. Boots are not permitted in sporter class air rifle shooting, but are allowed in smallbore or precision air rifle shooting.

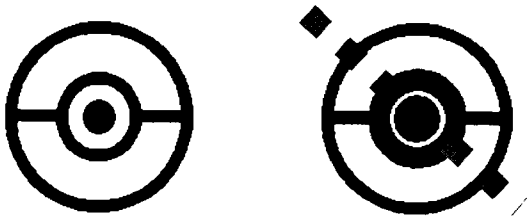
Shooting Jackets are not permitted in BB gun or sporter class air rifle shooting. Shooting jackets are highly recommended when shooting smallbore rifles or precision air rifles.

Front Sights and Front Sight Inserts

Rifles used for target shooting typically have a hooded front sight that accepts interchangeable inserts. The illustrations below show hooded front sights on a Daisy M853 sporter air rifle and a smallbore target rifle. The inserts are held in a slot in the middle of the sight.



Unless the new shooter is preparing for service rifle shooting where the post front sight is mandatory, an aperture of the correct size should be selected. New shooters should start with big, not small, apertures. The correct sized front sight ring for beginners is one where the inside of the front sight ring appears to be about twice the size of the aiming bull.



Correct size aperture **Aperture is too small**

Personal Protection Equipment.

There are certain items of equipment that should be worn by all shooters whether they are beginners or experienced.

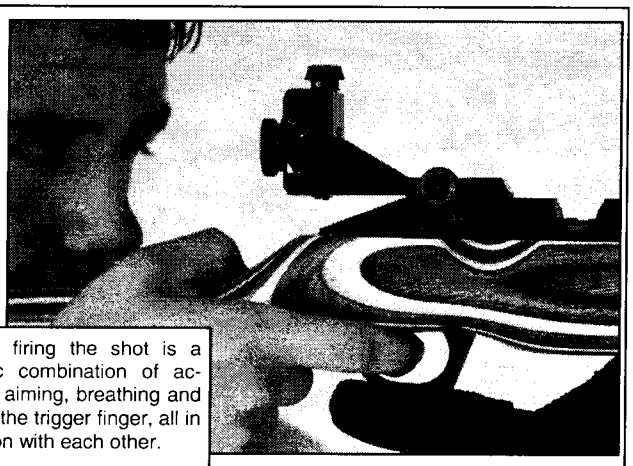
- **Eyeglasses**. Any person who normally wears eyeglasses should wear them while shooting. Many champion shooters wear corrective lenses while shooting so there is absolutely no disadvantage to a shooter who must wear prescription glasses to see the front sight and target clearer.
- **Safety Glasses**. Wearing shooting glasses or eyeglasses while firing can prevent eye injuries. Such incidents are rare, but do occasionally occur so wearing eyeglasses or eye protection is strongly encouraged for all shooters, especially when firing BB guns and smallbore rifles. There is a remote possibility that a BB or fragment of a bullet or pellet could bounce back and strike someone on the firing line. .22 cal. rimfire cartridges have on extremely rare occasions burst to expel hot gas and tiny pieces of brass that could injure an eye.

- **Hearing Protection**. Wearing ear muffs or ear plugs should be required for all shooters who fire smallbore rifles. .22 cal. rimfire cartridges generate sufficient sound when fired to cause hearing loss. Wearing ear muffs or ear plugs while firing can effectively prevent this type of hearing loss.

Technique for Firing the Shot

This section of the ***CMP Rifle Instruction Guide*** describes the correct techniques involved in the dynamic actions of firing the shot.

1. Learning the correct techniques of firing the shot must be done concurrently with learning the first firing positions. The first firing position should be either standing or the supported (rest) position.
2. Learn the elements of shot technique in three stages. In the first stage, practice 1) sight alignment and 2) breath control by holding on a blank target. In the second stage, practice 1) sight alignment, 2) breath control and 3) trigger control by dry and live firing on a blank target. Next, practice 1) sight alignment, 2) breath control, 3) trigger control and 4) sight picture by dry and live firing on a bullseye target.
3. Mastering effective techniques for firing the shot is significantly enhanced when shooters understand the elements of shot technique well enough to develop and apply a "shot plan" to control the firing of each shot.



The technique of firing the shot is a complex, dynamic combination of actions that includes aiming, breathing and the movements of the trigger finger, all in precise coordination with each other.

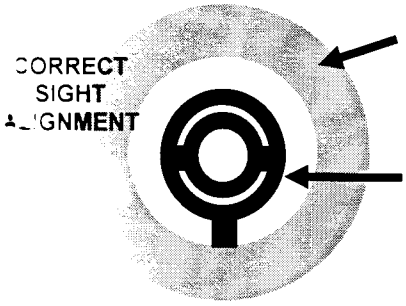
PRELIMINARY INSTRUCTION. Before new shooters learn how to fire a shot in any position, they must know and be able to apply these basics:

1. Be able to follow safe gun handling rules and proper range procedures.
2. Be able to hold the rifle in a firing position.
   a. Shooters 14 and older should start in the standing position if they have a rifle they can comfortably handle.
   b. Shooters 13 or younger should start with a position (prone, table or bench rest) where they use a rest to help support the rifle.
3. Know how their rifle operates—be able to open and close the action to cock the firing mechanism for dry firing; be able to load and unload the rifle for live firing.

THE TEACHING AND PRACTICE SEQUENCE. Mastering the techniques involved in correctly firing the shot should always be done by following a step-by-step sequence that gives new shooters plenty of opportunities to practice each step before advancing to the next. This table identifies each basic step in shot technique instruction and how a new shooter should practice that step.

Step 1: Sight Alignment & Breath Control	Aim at blank targets (no bull's-eye) while holding rifle in position.
Step 2: Trigger Control	Dry fire at blank targets. Live fire at blank targets.
Step 3: Sight Picture	Aim at bull's-eye targets while holding rifle in position. Dry fire at bull's-eye targets. Live fire at bull's-eye targets.
Step 4: Coordination of all elements of technique	Dry firing at bull's-eye targets. Live firing at bull's-eye targets.
Step 5: Adding new technique elements	Dry firing at bull's-eye targets. Live firing at bull's-eye targets.

STEP 1a—SIGHT ALIGNMENT. After new shooters learn how to hold the rifle in their first firing position, they must then place their cheek on the stock so they can look through the rear sight aperture. While looking through the rear sight aperture, see the front sight and align it in the center of the rear sight opening. Correct "SIGHT ALIGNMENT" is seeing the front sight centered in the rear sight aperture.



STEP 1b—BREATH CONTROL. Sight picture and breath control are learned at the same time since they are the two foundation steps to aligning the rifle on the target and holding it steady. Teaching breath control is simple. Just follow this sequence: a) place the rifle in position, b) begin to aim by aligning the sights, c) inhale and exhale normally one or two times, d) exhale and stop breathing and e) hold your breath for 8-10 seconds while you position the aligned sights on the target.

BREATH CONTROL—inhale and exhale normally—stop breathing while positioning aligned sights on target

Technique for Firing the Shot

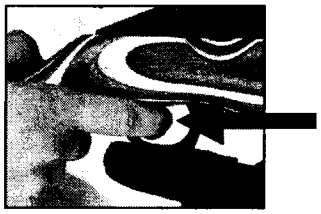
PRACTICING STEPS 1 AND 2

Learn the proper way to attain sight alignment and breathe. Then practice these elements of shot technique by holding the rifle in a firing position, correctly aligning the sights and holding your breath. Each hold should last about seconds. Younger and junior shooters should use a supported position (prone with support or shoot from a table or bench rest) for their first firing p

AN IMPORTANT SAFETY TIP

New shooters must learn that whenever they pick up a rifle to place it in a firing position, the trigger finger must remain **OUTSIDE** of the trigger guard until they begin to aim at the target.

STEP 2—TRIGGER CONTROL. After new shooters have an opportunity to practice sight alignment and breath control, the next step is to learn how to smoothly press the trigger while aiming the rifle at a blank target and holding the breath. Dry firing is the best method of practicing trigger control.



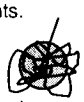
Pressure on the trigger must be **SMOOTH, SLOW** and **STRAIGHT TO THE REAR.** Apply pressure only when the sights are aligned on the target.

Practice trigger control by dry firing and live firing on blank targets.

STEP 3—SIGHT PICTURE. After new shooters can do dry and live firing on blank targets while practicing correct sight alignment and breath control, they are ready to learn sight picture. Proper sight picture is centering the aiming bull (black) in the front sight ring.

CORRECT SIGHT PICTURE

The bull's-eye will not sit perfectly still. **CENTER** the movements of the front sight over the bull! The line over the bull's-eye (below) shows an imaginary laser trace of these hold movements.



At first the movements may be larger than the whole target—the important thing is to center those movements and just press the trigger smoothly.

Practice sight picture by doing holding exercises on bull's-eye targets. Remember, center sight movements over the target.

STEP 4—COORDINATION. While learning correct sight picture, it is important to understand that centering sight picture hold movements is far more important than vainly struggling to attain a perfect sight picture. As soon as new shooters understand the concept of centering hold movements, it is time to combine SIGHT ALIGNMENT, BREATH CONTROL, SIGHT PICTURE AND TRIGGER CONTROL into one coordinated action. This is achieved by practicing the coordinated shot technique many times through both dry and live firing at bull's-eye targets

STEP 5—ADDING KEY ELEMENTS OF TECHNIQUE. After practicing the coordinated act of firing the shot while performing correct sight alignment, breath control, sight picture and trigger control, new shooters will be ready to learn three additional elements of shot technique. Each of these steps must be learned and practiced separately, one at a time.

STEP 5a—SHOT PREPARATION. Begin by bringing the rifle up into position. Then take a few seconds of extra time before beginning to aim. During this interlude, check to be sure your body is relaxed. Each time you exhale, try to let the tension in your muscles go. In the standing and kneeling positions, shooters must also check before each shot to be sure the weight of the body is balanced directly over the feet.

STEP 5b—HOLD CONTROL. While aiming at the target, try to think about only the sight picture. While attempting to fire the shot, stay relaxed, center the hold movements on the target and then focus visual attention on the sight picture. Concentrate on seeing as steady a sight picture as possible.

STEP 5c—FOLLOW THROUGH. After each shot is fired, it is critical that the shooter continue to focus visual attention on the sight picture for approximately one additional second. This assures that the aim of the rifle is not disturbed until well after the shot is out of the barrel.

These additional elements of shot technique also require practice:

- Practice **shot preparation** by consciously relaxing the muscles and checking the balance of the position before every dry and live fire shot.
- Practice **hold control** by consciously, during aiming, concentrating on the sight picture while striving to relax and let the hold movements become slower and steadier.
- Practice **follow-through** by learning to continue to aim and focus attention on their sight picture for one to two full seconds after each shot is fired.

Learning to Shoot In the Supported Position

This section of the ***CMP Rifle Instruction Guide*** examines the supported position. The supported position is often used as a "first position" for new shooters. Key principles that apply to using the supported position for initial range firing are:

1. The supported position is especially recommended for younger new shooters (12-14 years of age or younger). The supported position also works well when there is a need to give large numbers of new shooters range firing opportunities.
2. The supported position is ideal for learning the techniques of firing a shot that include sight alignment, breath control, trigger control and sight picture. Learning to adjust sights is also readily done while firing from the rest position.
3. Range firing activities should always follow a sequence that includes dry and live firing on blank targets followed by dry and live firing on bullseye targets.
4. New shooters should "graduate" from the supported position to standing just as soon as their shot groups are well within the black area of the BMC or regulation targets.

PRELIMINARY INSTRUCTION. Before a new shooter begins to learn to shoot in the supported position, they must have received some instruction in each of these topics:

1. Safe gun handling rules.
2. Basic range procedures.
3. How the rifle operates—how to cock and load it for dry and live firing.
4. How to determine the shooter's dominant eye and the correct shoulder to shoot from.
5. How to align the sights.
6. Correct breath control.
7. Correct trigger release technique.
8. Correct sight picture.

THE SUPPORTED POSITION. There two variations of the supported position. It may be fired from either the prone position or from a table. In either case, one or two sand bags, a kneeling roll or other support is placed under the fore arm of the rifle. Do not use a sling in the supported position. When assuming the position, the support arm (left arm for right-handed shooters) may be extended forward so that it holds the fore arm or the rifle or this arm may be bent so that the left hand is placed under the butt stock to support and steady the butt stock. The illustrations here and on the next page show basic supported position variations and how the shooter should lie or sit and hold the rifle. The key to the supported position is to be sure the arms are relaxed so that the support holds the rifle, not arm muscles.

REQUIRED EQUIPMENT.

For the prone supported position:

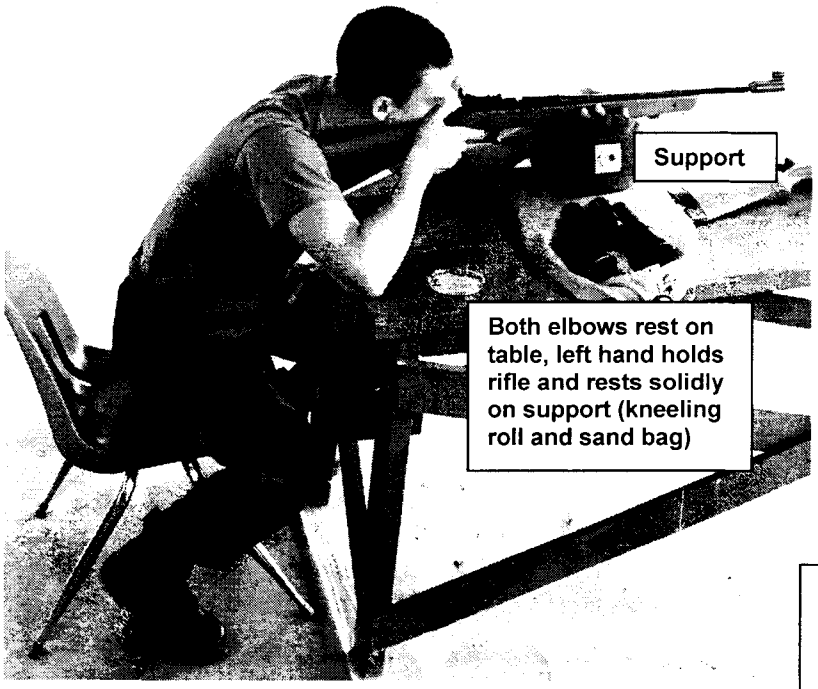
- Shooting mats for each firing point.
- Sand bags and/or kneeling rolls for supports.

For the supported position at a table:

- Sturdy tables or benches (28-30" high) with sufficient room for rifle supports and both elbows of the shooters.
- Chairs for each firing point.
- Sand bags and/or kneeling rolls for supports.

PRONE SUPPORTED POSITION

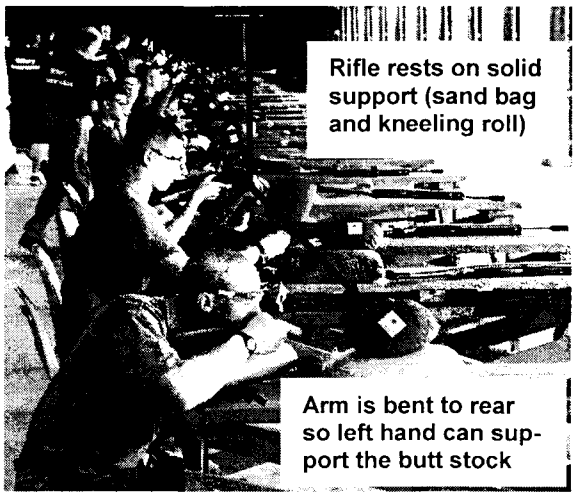
Learning to Shoot in the Supported Position



SHOOTING FROM A TABLE OR BENCH. Firing is done from a table or bench while supporting the rifle with one or two sand bags, a kneeling roll or other support. Key points in this position are:

1. Sit comfortably in the chair directly behind the table or bench.
2. Variation 1 (on left): Hold the rifle with the left hand (right handed shooter) and rest it on the support. Rest both elbows on the table.
3. Variation 2 (below): Rest the fore arm of the rifle directly on the support. Place both elbows on the table, but bend the left arm (right handed shooter) back so that the left hand supports and steadies the butt stock of the rifle.
4. Be sure to use a support that is high enough to raise the rifle up in the shoulder and allow the shooter to look comfortably at the targets.
5. When in position, relax the arms and upper body so that the support steadies the rifle.

The supported position is an ideal starter position where the skills of safe gun handling and the basic techniques of firing the shot can be practiced.



LEARNING TO SHOOT IN THE SUPPORTED POSITION. Learning the skills safe gun handling and firing the shot while using the supported position should follow a prescribed learning sequence. After working out a steady supported position, follow this practice sequence:

Step 1—Dry Fire on A Blank Target. Start by hanging a blank target (reversed BMC target). After receiving instruction in sight alignment, breath control and trigger control, practice these fundamentals by dry firing on a blank target.

Step 2—Live Fire on A Blank Target. Continue with a blank target. Shoot three or five shot groups by loading and firing while aligning the sights on the center of the blank target. The objective is to place all shots in a small grouping on the target; shot groups do not have to be centered.

Step 3—Dry Fire on Bullseye Target. Next, turn the target around so that the bullseye is visible. After receiving instruction in sight picture, practice combining proper sight alignment, breath control, sight picture and trigger control by dry firing on the bullseye target.

Step 4—Live Fire on Bullseye Target. Continue with a bullseye target. Shoot three or five shot groups by loading and firing while aiming at the bullseye target. At this stage of instruction, it is not important to have the shot groups in the center of the target. What is important is to have the shots together in a small group.

Step 5—Sight Adjustment. If the supported position is used as a first position, the principles of sight adjustment should also be taught and practiced before advancing to standing. After receiving instruction in sight adjustment, fire a three or five shot group, adjust the sights to center the group. Continue firing groups and making sight adjustments until the groups are well centered.

Step 6—Target Scoring and Advancement. Once shot groups are well-centered on the target, the principles of target scoring can be taught and practiced. At this stage, new shooters can also begin to shoot 10-shot series for score. When 10-shot scores from the supported position are consistently above 90x100 on the BMC target or 75x100 on the 10 meter or 50 foot regulation target, it is time to advance to the standing position.

Learning the Standing Position

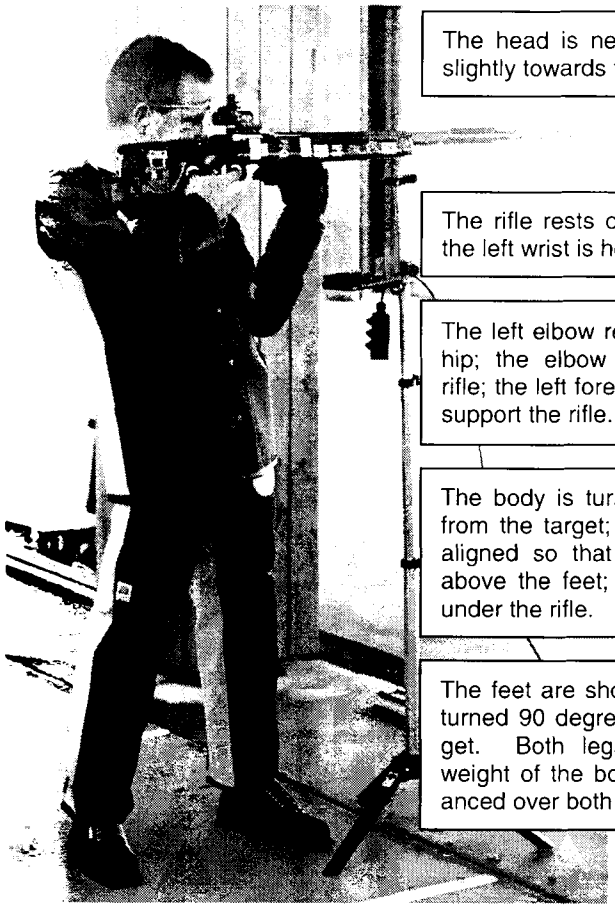
This section of the ***CMP Rifle Instruction Guide*** examines the standing position. Key principles that apply to learning and developing a stable standing position are:

1. Standing should be the first shooting position taught to shooters who are physically able to handle the rifle in standing (14 years of age or older). This is because standing is actually the easiest and most natural shooting position to learn; it is also the position requiring the most practice to learn to shoot it well.
2. Initial standing position instruction should cover only four basic teaching points (90° body turn, support elbow on side, support hand position and rifle up-head up).
3. All other details concerning the position should be introduced in later training sessions after shooters practice the position and become comfortable with it.
4. Be sure to start with targets large enough to contain all well-aimed shots. The BMC Target is ideal for the first range firing sessions in the standing position.

STEP 1 -- PRELIMINARY INSTRUCTION. Before a new shooter begins to learn to shoot in the standing position, they must know and understand these things:

1. Safe gun handling rules.
2. Basic range procedures.
3. How the rifle operates—how to cock and load it for dry and live firing.
4. How to determine the shooter's dominant eye and the correct shoulder to shoot from.
5. How to align the sights.
6. Correct breath control.
7. Correct trigger release technique.
8. Correct sight picture.

STEP 2 -- STUDY THE POSITION. Before a new shooter tries the standing position, it is important to first study good standing positions used by successful shooters who have already mastered the position. You can do this by examining photos of champion shooters or by observing the position used by an advanced shooter in your club or team. The shooters whose positions are shown on this page are both 2004 Olympic medalists. Mike Anti (left) is a U. S. Army shooter who won a silver medal in the 50m three-position rifle event. Du Li (right) from China won the women's air rifle gold medal in Athens. Notice the similarities of their positions. Both positions are outstanding examples of the classical standing position. New shooters should visualize how they will hold their rifle in a position that looks like the positions of these Olympic champions. The captions between their photos point out the most important basic features in a correct standing position.



The head is nearly erect; it is tipped slightly towards the target.

The rifle rests on top of a closed fist; the left wrist is held straight, not bent.

The left elbow rests on the left side or hip; the elbow is directly below the rifle; the left forearm acts as a brace to support the rifle.

The body is turned 90 degrees away from the target; the hips and feet are aligned so that the hips are directly above the feet; the left hip is directly under the rifle.

The feet are shoulder width apart and turned 90 degrees away from the target. Both legs are straight. The weight of the body-rifle system is balanced over both feet.

Learning the Standing Position

STEP 3—GET INTO POSITION WITHOUT THE RIFLE. First learn how the position feels without the rifle. Apply the four teaching points shown by the arrows and captions in the order they are numbered.

4. Hold the head erect, look toward the target.

3. Position the hands to hold an 'imaginary' rifle. Keep the left wrist straight; form a fist with the hand.

2. Rest the support elbow on the side or hip. Be sure the elbow is directly below the imaginary rifle.

1. Turn the feet, hips and body 90 degrees away from target. The left side must point towards the target.

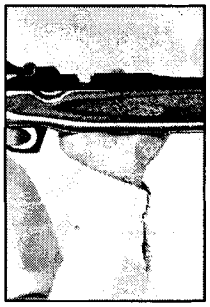
STEP 4—GET INTO POSITION WITH THE RIFLE. Next pick up the rifle and hold it in the same position you developed without the rifle. Be sure the left elbow is on the side, directly under the rifle. There are three points to check.

Rifle up—head up. Locate the butt plate high enough in the shoulder to keep the head erect.

Be sure the hand and wrist position raises the rifle to the level of the target. See Step 5 below if the rifle points above or below the target.

Check again to be sure the elbow is directly under the rifle. Also be sure the arm is relaxed on the side or hip.

STEP 5—SELECT THE CORRECT HAND POSITION. If the rifle does not point comfortably at the target after placing the rifle in position with the wrist straight and the rifle resting on the closed fist, try a different support hand position. If the rifle points below the target, try a higher hand position. If the target points above the target, try a lower hand position.



If the rifle points too high, try bending the wrist and placing the rifle on the flat of the hand (shown on left).

If the rifle points too low, try raising the rifle by resting it on the thumb and split fingers. New shooters are encouraged to wear a shooting glove or leather work glove on the left hand while supporting the rifle in standing.

PRACTICING THE STANDING POSITION. After working out a comfortable standing position by applying steps one through five, develop the position by following this practice sequence.

Standing Practice 1—Holding On A Blank Target. Start by hanging a blank target (reversed BMC target). The first standing practice is done by holding the rifle steady while aligning the sights on the center of a blank target. Be sure the position conforms to the teaching points in steps three and four. Practice getting into the correct position while performing proper sight alignment and breath control. Continue each 'hold' repetition about eight seconds, then resume breathing and take the rifle down for a break.

Standing Practice 2—Dry Firing On A Blank Target. In this step, trigger control is added to the practice sequence. Now it is necessary to remove the ECI/CBI and close the action before placing the rifle in position. Get into position, align the sights, exhale and stop breathing to begin holding the aligned sights on the target. With the position relaxed and the aligned sights centered, smoothly press the trigger. Dry fire several shots on the blank target.

Standing Practice 3—Live Fire On Bullseye Target. After performing several repetitions of holding and dry firing on a blank target, new shooters are ready to fire three or five shot live fire groups on blank targets. The important thing here is to have the shot holes form a group somewhere on the target. The group does not have to be in the middle of the target, however.

Standing Practice 4—Holding & Dry Firing On Bullseye Target. Next turn the target around so that additional holding and dry-firing repetitions can be done while aiming at an actual bull's-eye. Here the shooter practices sight picture, centering the hold movements over the bull's-eye and proper trigger release.

Standing Practice 5—Live Fire On Bullseye Target. The last step in the standing position learning sequence is to shoot three or five shot live fire groups on a bullseye target. It is necessary to repeat this complete sequence (practice steps one through five) during several practice sessions before it is time to learn sight adjustment or to introduce new teaching points to improve the position.

Target Sights and How to Adjust Them

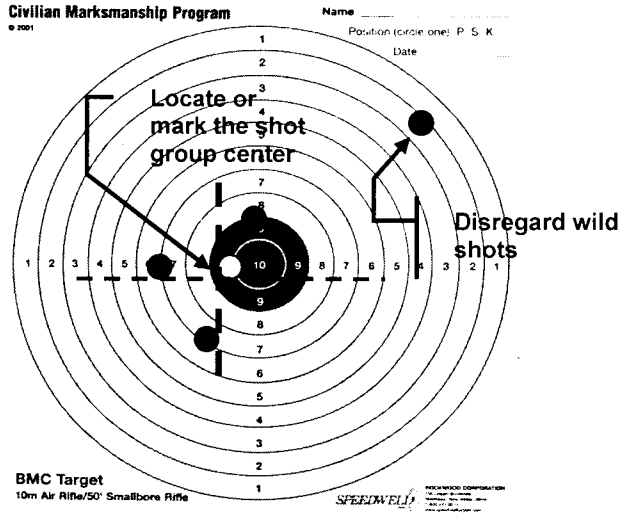
This section of the ***CMP Rifle Instruction Guide*** describes the sights on target rifles and how to adjust them to assure that all the shots fired by shooters are as close to the center of the target as possible. One of the most important lessons for new target shooters to master is learning how to use and adjust their sights. New shooters should start out by shooting groups where it does not matter where the shots are located on the target, only whether the shots fall together in a group. After new shooters have developed sufficient skill through practice to shoot good shot groups, they need to learn how to adjust the sights on their rifles so that their shot groups are centered on the targets.

PRINCIPLES OF SIGHT ADJUSTMENT:

1. **The major factor in maximizing target shooting scores is having sights adjusted so that groups are centered.**
2. **The shooter, not the coach, is responsible for adjusting sights so that his/her shot groups are centered.**
3. **Sight adjustment begins with knowing how your sights operate.**
4. **Sights that are adjusted so the rifle's shot groups are centered are 'ZEROED.'**
5. **The sight adjustment that allows shot groups to strike the center of the target is called its 'ZERO.'**
6. **Beginning shooters must make sight adjustments by analyzing shot groups and making the necessary changes.**
7. **Advanced shooters make sight adjustments by analyzing individual shots and sequences of shots.**
8. **A rifle that is zeroed (sights correctly adjusted) for one position may not be zeroed for the other positions.**
9. **A rifle that is zeroed for one shooter may not be zeroed for other shooters.**
10. **A rifle that is zeroed at the beginning of a series of shots may not be zeroed at the end of a series.**

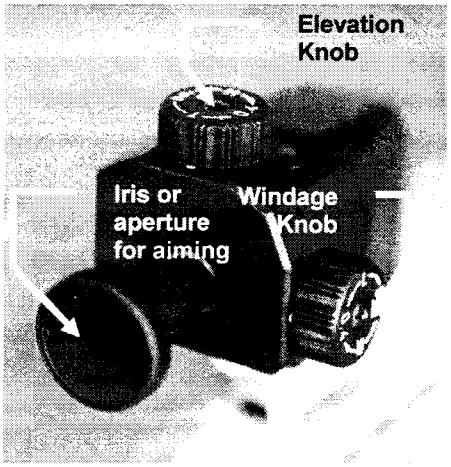
Sight Adjustment – Step 2
Analyze Your Shot Group

New shooters must shoot groups of three or five shots before making sight adjustments. Before any sight adjustment can be made, it is necessary to analyze the shot group to determine where the center of the shot group is located. Here is a typical new shooter's shot group.



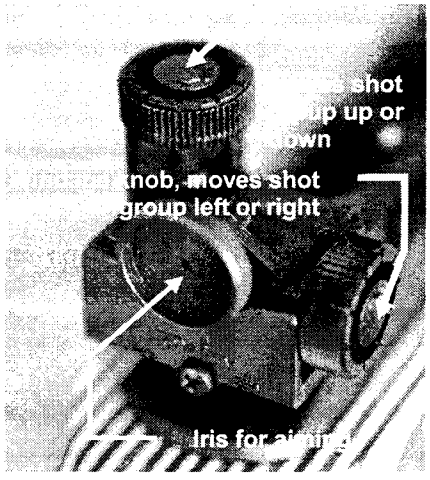
a. **Disregard any wild shots that were not fired correctly.**
b. **Find the center of the group of good shots by drawing horizontal and vertical lines though the primary group (all well aimed shots).**

Sight Adjustment – Step 1
Know How Your Sights Work



Target rear sights mount on the rifle receiver. Target sights have a rear iris or aperture that the shooter looks through while aiming. Target sights have two adjustment knobs:

- Elevation Knob—turning this knob moves the shot group up or down. On European sights, the direction arrow indicates the direction to turn the knob if the shot group lies high (H) or low (T).
- Windage Knob—turning this knob moves the shot group left or right.



On American sights like this sporter air rifle sight, the direction arrow indicates the direction the shot group will move towards if the knob is turned in the direction of the arrow.

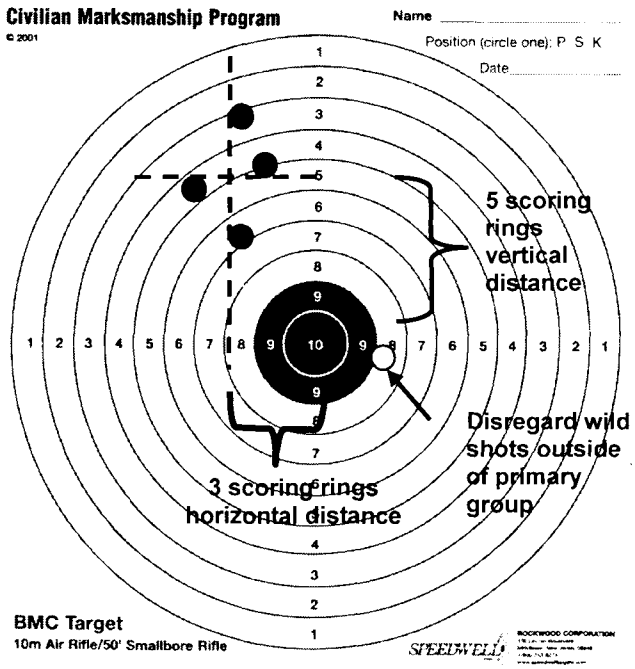
Sight adjustment knobs turn in increments or **CLICKS**. Turn the sight knobs to learn how sight adjustment clicks feel and can be counted.

Sight adjustments are calculated on the basis of how many clicks of adjustment, up or down, left or right, need to be made.

Target Sights and How to Adjust Them

Sight Adjustment – Step 3
Calculate and Make Sight Adjustments

After the shot group center is located, calculate the horizontal and vertical changes needed to move the shot group to the center of the target. Then make the changes.



Step 3a—Calculate and make left-right sight adjustment:

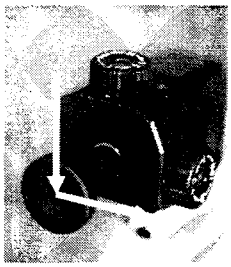
- Count the number of scoring rings in horizontal distance from the shot group center (vertical line) to the target center. On the target above, this distance is 3 scoring rings.
- On the BMC target, multiply the number of scoring rings times 6 (for sporter air rifle sights) or 12 (precision target sights). On the 10-meter or 50-foot competition targets, multiply scoring rings times 2 (sporter sights) or 5 (precision sights).
- Turn the windage knob that number of clicks. For the group on the target above, turn the windage knob on a sporter sight 3x6=18 clicks to the right (in the "R" direction). For the target above, turn the windage knob on a precision target sight 3x12=36 clicks in the direction of the "L" arrow ("bei" means from the left side).

Step 3b—Calculate and make up-down sight adjustment:

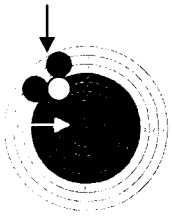
- Count the number of scoring rings in vertical distance from the group center (horizontal line) to the target center. On the target above, this distance is 5 scoring rings.
- On the BMC target, multiply the number of scoring rings times 6 (for sporter air rifle sights) or 12 (precision target sights). On the 10-meter or 50-foot competition targets, multiply scoring rings times 2 (sporter sights) or 5 (precision sights).
- Turn the elevation knob that number of clicks. For the target above, turn the windage knob on a sporter sight 4x6=24 clicks down (opposite the "Up" direction). For the target above, turn the elevation knob on a precision target sight 4x12=48 clicks in the direction of the "H" arrow ("bei" means from the high side).

Step 3c—Fire another shot group and repeat the same process. It may take three or four shot groups to complete the process of zeroing the rifle. After a rifle is zeroed, it is important to continue the process of analyzing and correcting shot group locations. The rifle zero probably will not be the same for different positions. The rifle zero also may not be the same for two or more shooters who use the same rifle.

Fundamental Principle of Sight Adjustment

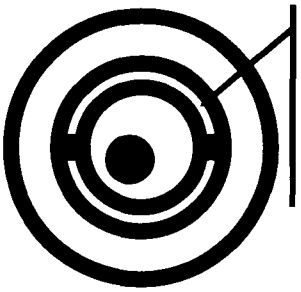


Sight adjustment must follow a simple principle. The rear sight aperture must be moved in the same direction that the shot group must be moved.

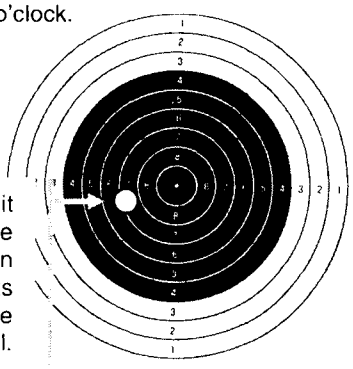


Sight Adjustment for Advanced Shooters

New shooters make sight adjustments by determining the center of their shot groups and then calculating and making sight changes. Advanced shooters must learn to accurately call their shots and make sight adjustments so that their shot locations and shot calls coincide.



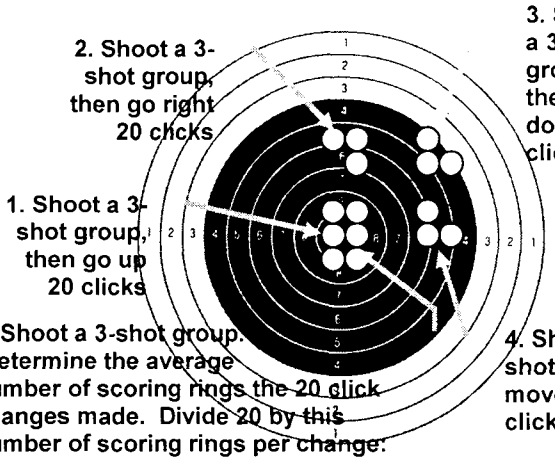
Call the shot by forming a mental "snapshot" of where the front sight was located in relation to the bull when the shot was fired. The shooter "called" this shot an 8 at 2 o'clock.



If the shot is located where it was called, it is "on-call." If one or more shots are "off-call" in the same direction, the sights must be adjusted so that the next shots will be on-call.

Determining Click Values—Shoot a Box!

To make accurate sight adjustments, the shooter must know exactly how many clicks per ring there are for the elevation and windage knobs on his/her sight. A very good exercise to determine this is to "Shoot a Box."



Learning the Use of the Sling

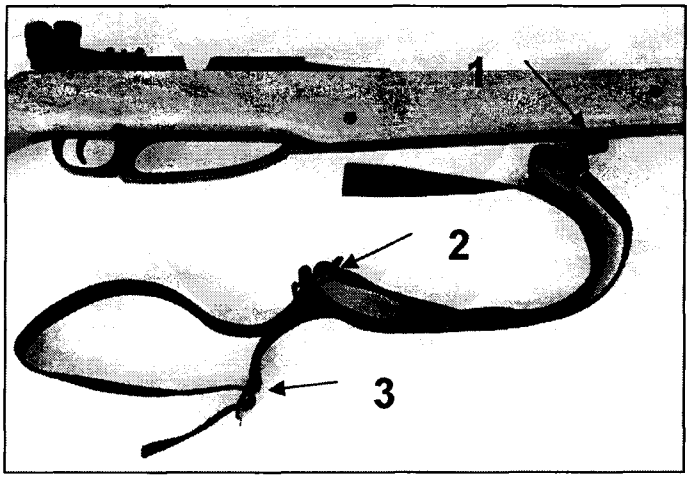
This section of the ***CMP Rifle Instruction Guide*** examines how to properly use a sling.

1. The only way to achieve a competitive, stable prone, kneeling or sitting position is to properly use a sling while firing in those positions. The use of a sling in those positions should never be considered optional.
2. Successful use of the sling is best mastered by following a step-by-step process that begins with configuring and placing the sling on the arm and ends with the final adjustment of the sling to allow it to take over the work of supporting the rifle.
3. The sling is properly used only when it totally supports the rifle so that the arm muscles are completely relaxed and do no work to hold up the rifle.

PRELIMINARY INSTRUCTION. Before learning how to use the sling in prone or kneeling, be sure you know and can apply these basics:

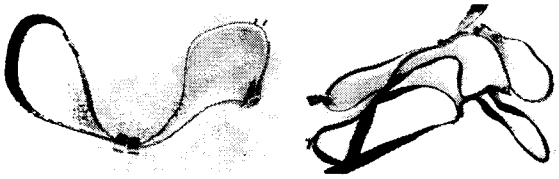
1. Safe gun handling rules and proper range procedures.
2. Basic technique for firing shots in a shooting position (usually learned in standing or supported position).
3. How to adjust sights to center shot groups.

SLING CONFIGURATION. Before you start, be sure each shooter's rifle is equipped with an adjustable sling swivel and a sling that is correctly configured. The illustrations here show common types of slings used in basic marksmanship instruction, typical sling attachment devices and the basic sling configuration.

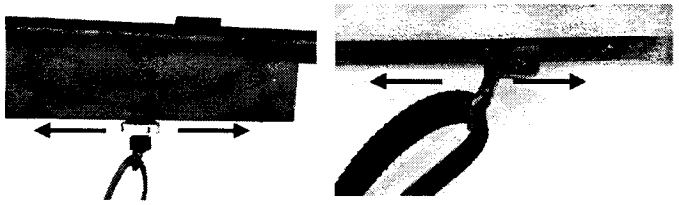


Slings used for target shooting should have:

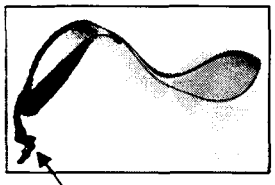
1. An attachment point or sling swivel that permits forward or rearward adjustment of the attachment point on the rifle fore end.
2. A means of adjusting the length of the sling.
3. A means of tightening the sling around the upper arm so that it remains in the correct position on the arm.



Slings that are well-suited for use in basic marksmanship instruction include leather slings like the sling on the left, military web slings (right top) and Daisy sporter air rifle slings (right bottom).

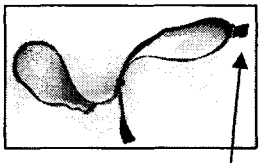


Most target rifles used for junior instruction have sling swivels like the one on a Kimber M82 (right). These sling swivels are mounted on a rail that permits adjustment of the sling swivel location or the rifle fore end. The sling attachment point on Daisy rifles (left) is also adjustable.



Original configuration, clip on lower end

An excellent, economical source of slings for basic marksmanship instruction are surplus military web slings that may be purchased from the CMP for $5.00 each. The illustration on the right shows a web sling in its original configuration. The illustration on the left shows the sling after it was reconfigured for target use. The metal clip that was designed for attaching the sling to a lower sling swivel is moved so that it now attaches the sling to the sling swivel on the fore end.



New configuration, clip hooks to sling swivel

Learning the Use of the Sling

STEP 1—PUT SLING ON ARM

The first step in using a sling is to detach it from the rifle, form an arm loop and place the sling on the left (right-handed shooter) upper arm. The best place for the sling is to put it as high on the arm as possible. Tighten the loop so it won't slip down.

1A—Detach the sling.
1B—Form arm loop.

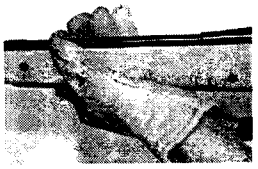
1C—Place loop high on arm & tighten loop.

STEP 2—GET INTO POSITION WITH SLING LOOSE

To get into position with the sling, extend the sling, making sure it is adjusted long enough that it reaches the extended fingertips. Next, rotate the sling swivel one-half turn clockwise. Then reattach the sling swivel to the fore end. When the shooter first gets into position with the sling attached, the left hand must be extended and then rotated clockwise around the sling so that the hand lies between the fore end and the sling. With the hand in position, be sure the sling is loose and the sling swivel does not touch the hand.

2A—Extend the sling, adjust it long.
2B—Rotate the sling swivel one-half turn clockwise.

2C—Reattach the sling.
2D—Get into position.
2E—Rotate left hand around sling—hand holds fore end between sling and fore end.
2F—Be sure sling is 'long and loose'.



A glove should be worn when shooting with a sling.

STEP 3—FIX LEFT HAND POSITION

With the sling 'long and loose,' move the left hand forward and backward until it raises the sights to the level of the target. With the left hand in the proper position, move the sling swivel back into the "V" between the left and thumb and tighten it.

STEP 4—TIGHTEN THE SLING

The final step in preparing to properly use the sling in prone or kneeling is to tighten the sling until it takes over the work of supporting the rifle. The sling should be adjusted tightly enough that the muscles of the left arm and upper body are completely relaxed while firing.

Learning the Prone Position

This section of the **CMP Rifle Instruction Guide** describes the prone position and how it should be learned and mastered by new shooters.

1. The prone position is a more stable position that will produce higher scores, but it is also a more complicated position to learn especially since it involves also mastering the proper use of the sling. It is best to begin learning prone after having developed fundamental skills by firing in the supported and standing positions.
2. When learning any new shooting position, follow a step-by-step process that begins with only the essential information needed to assume a fundamentally sound position. Add all other details one or two teaching points at a time as you continue to practice and become comfortable with the position.
3. The prone position becomes a stable, consistent firing position when bones (arms and shoulder girdle) and the sling support the rifle and upper body, when upper body muscles are completely relaxed and when the position's natural point of aim is precisely aligned on the target.

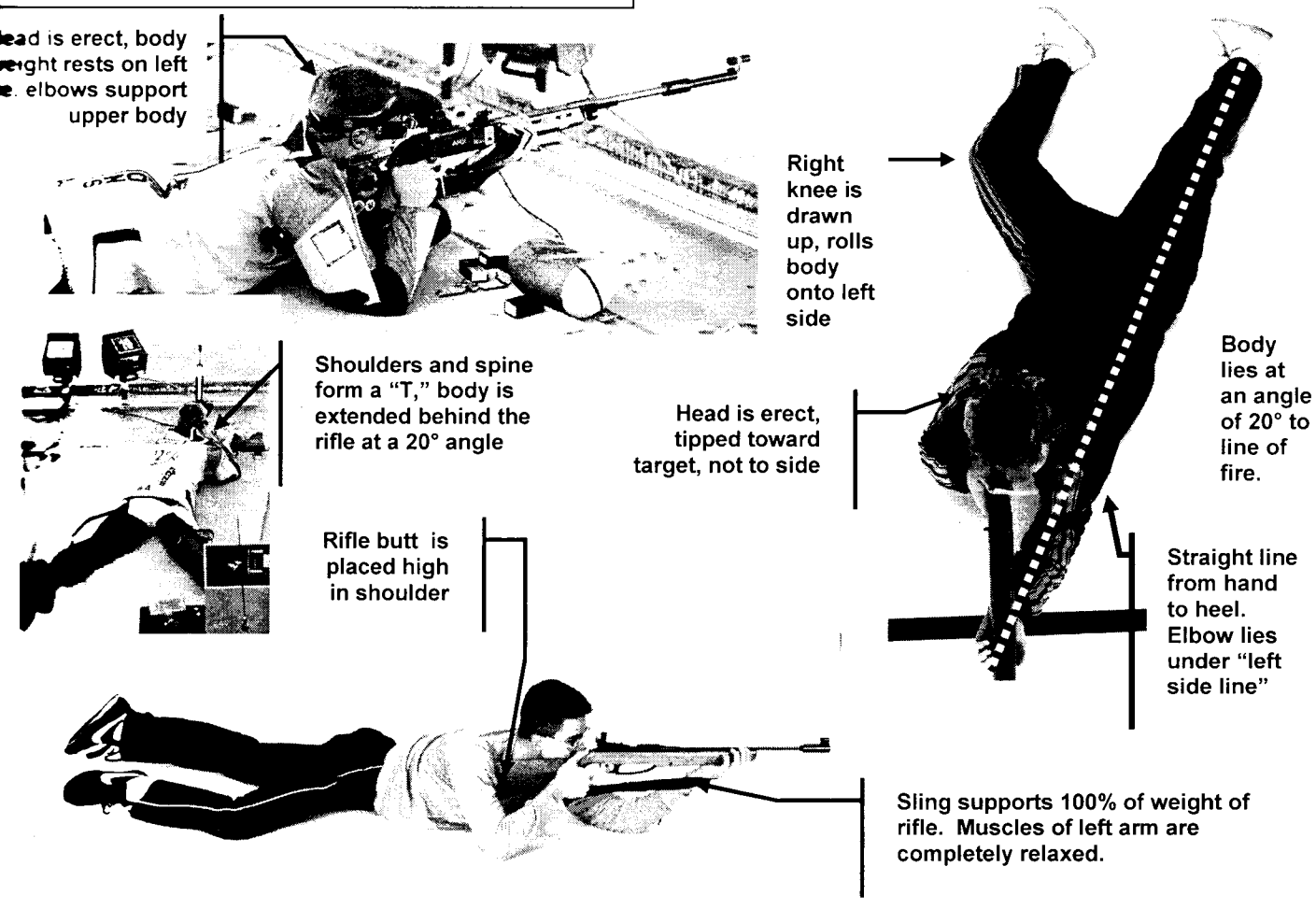
STEP 1—PRELIMINARY INSTRUCTION

Before learning how to shoot in the prone position, be sure you know and can apply these basics:

1. Safe gun handling rules and proper range procedures.
2. Basic technique for firing shots in a shooting position (usually learned in the supported and standing positions.
3. How to adjust sights to center shot groups.
4. How to put the sling on the arm, attach it to the rifle and place the arm in the sling.

STEP 2—STUDY THE POSITION

A picture is worth a thousand words! Studying the prone positions used by successful shooters allows new shooters to form a mental image of the prone position that they will want to use. Carefully study the photos here by noting each of the arrows and captions. As you look at each prone position feature in the illustrations on this page, try to imagine yourself in the prone position that duplicates these photos. The shooter in the two top left photos is Matt Emmons, USA. Emmons won the 50 meter prone rifle gold medal in the 2004 Olympic Games in Athens.

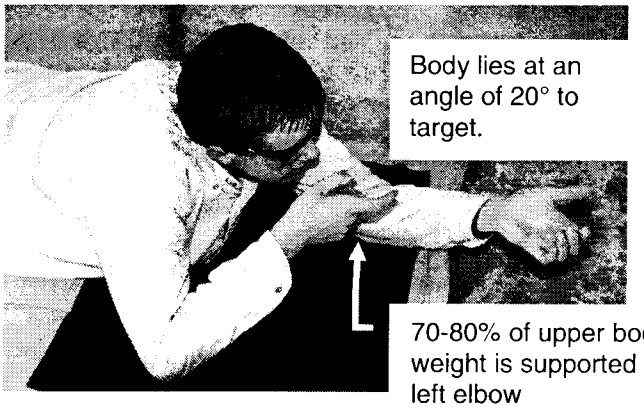


Learning the Prone Position

STEP 3—GET INTO POSITION WITHOUT THE RIFLE OR SLING

The next step in getting into the prone position is to get into position without a rifle or sling. Lay the rifle on the side of the shooting mat. Start by standing at the rear of the mat.

- Kneel and lie down, facing the target. The body should lie at an angle of about 20° to the target.
- Extend the left arm to the front so that it forms a straight-line extension of the left side of the body.
- Turn the right toe out and extend the right leg or pull the right knee up so that some body weight rolls or shifts to the left side.
- Place the right arm on the mat so that it helps to support the upper body. More upper body weight should rest on the left elbow than on the right elbow. Position both hands as if they were holding an imaginary rifle.
- Form a mental picture of how this body position feels so that it can be duplicated with the rifle.



Body lies at an angle of 20° to target.

70-80% of upper body weight is supported on left elbow

STEP 4—GET INTO POSITION WITH THE RIFLE--WITH THE SLING LONG AND LOOSE

The next step involves getting into position with the rifle to determine the correct location of the support (left) hand. Since the actions that follow involve adjusting the sling, it is best to put the sling on and to attach it before getting into position with the rifle. Follow these steps:

- Attach the sling, make sure it is adjusted long enough that the sling swivel does not contact the support (left) hand. The sling must be loose. For details on correct sling use, review "How to Use the Sling" on pages 21-22 of this guide.
- Assume the prone position with the rifle in position on the shoulder. Check the body angle and elbow placement.
- Check the placement of the rifle butt. It should be close to the neck and high enough to keep the head erect and the right eye comfortably looking forward through the rear sight.
- Next, find the correct location for the support (left) hand. Move the hand forward and backward on the fore end until the front sight is at the same level as the target.
- With the left hand in this location, move the sling swivel back to the V between the thumb and hand. Tighten the sling swivel in this location.

Be sure rifle butt is placed high in shoulder so head position is erect and comfortable.

Start with sling 'long and loose.' After left hand position is fixed, move sling swivel back to V in hand and tighten.

Move left hand forward and rearward until front sight is at level of target.

STEP 5—ALIGN THE POSITION

The prone position has a very precise natural point of aim (NPA) that must be aligned on the target. To align the position on the target, close the eyes, relax the body and let the rifle "hang" on the sling. Let the rifle point where it naturally wants to point. Open the eyes to see where the NPA is pointing. Follow these steps to adjust the NPA to the target.

The pivot point for all NPA adjustments is the left elbow. Keep the elbow in place while moving the entire body.

Use the feet to push the body forward or rearward over the pivot point to adjust the NPA up or down.

Use the feet to shift the entire body left or right on the pivot point to adjust the NPA left or right.

Complete hand and sling adjustment by tightening sling until it takes over the work of supporting the rifle. When correctly adjusted, the arm muscles should not have to do any work to support the rifle.

Learning the Kneeling Position

This section of the ***CMP Rifle Instruction Guide*** describes the kneeling position and how it should be learned and mastered.

1. The kneeling position is recognized as the most complicated and difficult position to learn. This is because establishing a stable kneeling position involves a complex interrelationship of the locations of the arms, torso and legs and the impacts that each of those body part locations have on the overall balance of the body-rifle system.
2. The kneeling position should be learned after new shooters have first learned the standing and prone positions.
3. When teaching any shooting position, follow a step-by-step process that begins with the minimum teaching points needed to get the shooter into a satisfactory position. Add all other details one or two teaching points at a time as the new shooter continues to practice and becomes comfortable with the position.
4. The most important keys to a stable kneeling position are a) balancing the body-rifle system over the right and left heels, b) positioning the torso so that muscle tension is reduced to the absolute minimum and c) using the sling and bones to support the rifle and upper body and to allow the arms and upper body to be almost completely relaxed in a perfectly balanced position.

2000 Olympic gold medalist in the 50m three-position event, Raimond Debevec of Slovenia, uses a classical kneeling position with the weight of his upper body and rifle balanced over his left and right heels and with most of his body weight back on his right heel.

STEP 1—PRELIMINARY INSTRUCTION

Before learning how to shoot in the kneeling position, be sure you know and can apply these basics:

1. Safe gun handling rules and proper range procedures.
2. Basic technique for properly firing shots in the standing and prone positions.
3. How to adjust sights to center shot groups.
4. How to put the sling on the arm, attach it to the rifle and place the arm in the sling.

STEP 2—STUDY THE POSITION

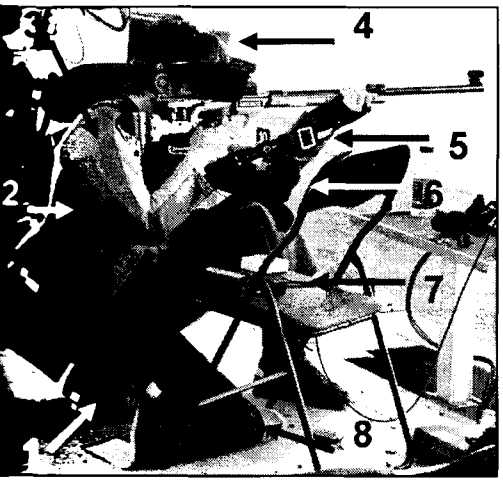
Before any new shooter attempts to get into the kneeling position, they should study photos of positions used by successful shooters like those on this page. Having a successful shooter on your club or team demonstrate their kneeling position is also a good way to study the position. Try to form a mental image of yourself in the kneeling position while using a position like these model positions. The model positions here are demonstrated by Olympic gold medalist Raimond Debevec (above), Olympic silver medalist Tatiana Godobina (Russia, lower left) and a sporter class air rifle shooter (lower right).

1. Kneeling roll is turned 30-45° away from target. Right ankle rests on kneeling roll with heel pointed straight up.

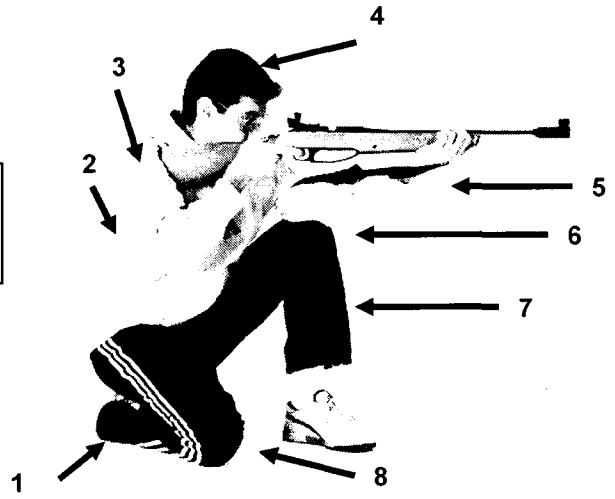
2. Most body weight rests on the right heel—weight relaxes down onto heel.

3. Shoulders are rolled or slumped down—the upper body is not held erect.

4. Head is erect or may be tipped slightly forward, towards target, never to the side (right).



5. Sling supports the total weight of the rifle.



6. Left elbow rests on left knee or just behind left knee.

7. Lower leg is vertical or foot is slightly forward (never back).

8. Right leg is pointed 30-45° from target.

The KEYS to kneeling stability are 1) to balance the body and rifle weight over the right and left heels and 2) to relax the torso so that there is no muscle strain in the back.

Learning the Kneeling Position

STEP 3—GET INTO POSITION WITHOUT THE RIFLE OR SLING (see photo on right)

Especially for a new shooter, a critical beginning is to first get into the kneeling position without a rifle or sling. Lay the rifle on the side of the mat. Start by placing a kneeling roll on the mat—the kneeling roll should be turned approximately 30-45° from the target.

1. Place the instep (ankle) of the right foot over the kneeling roll.
2. Sit on the right heel—let as much body weight as possible relax down onto the right heel. Keep the heel pointed straight up.
3. Let the upper body relax down—do not try to sit up erect—let the shoulders roll (slouch) down and forward to relax the upper body.
4. Place the left leg in front of the body so that the left lower leg is vertical or inclined slightly forward.
5. Extend the left arm and drop it onto the left knee so that the elbow rests on the knee or just behind it.
6. Form a mental picture of how this body position feels so this can be duplicated with the rifle.

TIP: Go through steps 3-6 as one continuous process—do not get out of position between steps.

STEP 4—GET INTO POSITION WITH THE RIFLE--WITHOUT THE SLING (see photo on left)

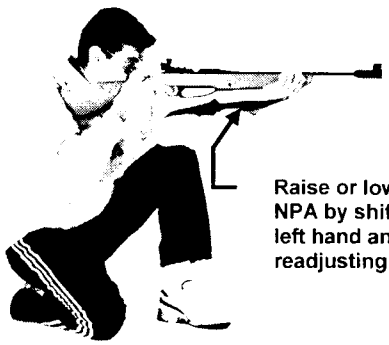
The next step involves adding the rifle to the position. Pick up the rifle and position it on the shoulder.

1. Be sure the body is in the same position as it was in Step 3.
2. Place the buttplate high enough in the shoulder so that the head is nearly erect.
3. Move the left hand forward or rearward on the fore arm of the rifle until the sights point at the same level as the target.
4. Mark the location of the left hand (where the "V" between the thumb and hand lies) on the fore end.

STEP 5—GET INTO POSITION WITH THE RIFLE & SLING (photo on right)

With the proper location of the left hand on the forearm determined, attach the sling and complete the position. Be sure to start with the sling length adjusted so that it is too long.

1. Attach the sling to the arm. Place the sling high on the arm.
2. Turn the sling swivel one-half turn to the right (clockwise), attach it to the forearm. Tighten the swivel at the location marked on the forearm (Step 4, #4).
3. Have the shooter place the rifle in position with the hand in the marked location on the fore end.
4. Tighten the sling until it takes over the work of supporting the entire weight of the rifle.
5. Recheck the position--be sure the butt is up in the shoulder, the head is erect and the sights point at target height.



Raise or lower NPA by shifting left hand and readjusting sling

STEP 6—ALIGN AND PERFECT THE POSITION (photo above, right)

To attain a stable kneeling position, the position must be aligned, relaxed and balanced. Follow these steps to complete the position.

1. Align the position's natural point of aim (NPA) left or right by rotating the entire position over the kneeling roll.
2. Align the position's NPA up or down by shifting the left hand forward or rearward while simultaneously adjusting the sling swivel and sling.
3. Relax the upper body and shoulders down on the kneeling roll and let the rifle hang on the sling. Relaxation is a key to kneeling stability.
4. Balance the weight of the body-rifle system over the right (on the kneeling roll) and left heels. Balance is a key to kneeling stability.

The Most Common Errors of Beginning Shooters

This section of the ***CMP Rifle Instruction Guide*** describes the most common errors made by new shooters. It examines how to detect and correct these errors. Coaches and shooters need to work together to become more knowledgeable and skilled at detecting and correcting errors, but it is also important to recognize that error detection and correction is a primary responsibility of the shooting coach and that the coach must take the initiative in working with shooters to correct errors. It is also important for new shooters to learn to analyze their own performances and to recognize when they are making mistakes that require correction.

PRINCIPLES OF ERROR CORRECTION.

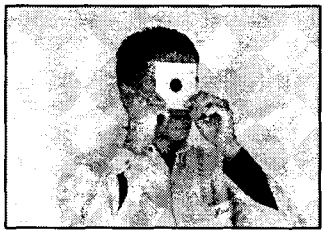
The most important principles to follow in detecting and correcting errors are:

1. **KNOW THE SHOOTING FUNDAMENTALS.** There is no substitute for knowing the details of good shooting positions and techniques when correcting errors. The most serious errors are always violations of shooting fundamentals so the foundation of error correction is to know the fundamentals.
2. **USE POSITION AND TECHNIQUE CHECKLISTS.** The best marksmanship instruction guides provide checklists that identify the key features of positions and shot firing technique. Those checklists should be a basis for identifying and correcting errors.
3. **MAKE ERROR DETECTION AND CORRECTION PART OF EVERY MARKSMANSHIP SESSION.** Error detection and correction must be an on-going, integral part of all marksmanship coaching and shooting. The sooner an error is identified and corrected the less likely it is to become a habit that is difficult to overcome.
4. **ERROR CORRECTION MUST ALWAYS BE POSITIVE.** When an error is detected, correct it with positive guidance. The communication with the shooter must never be, "don't jerk the trigger." Instead, it must encourage the shooter to perform the skill correctly; "you'll get better results if you press the trigger smoothly and slowly so the rifle surprises you when it fires."

Effective error correction begins when the coach knows shooting fundamentals and spends considerable time with each shooter helping them analyze their performances and providing feedback on how they are performing the marksmanship skills that the shooters are trying to learn. Communication between the coach and shooter is a key to error correction.

AIMING WITH THE WRONG EYE.

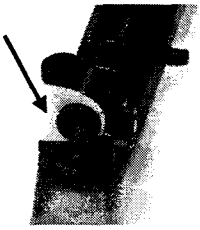
This error almost always occurs with cross-dominant shooters and manifests itself in the very first firing sessions. When someone who is left-eye dominant tries to shoot from the right shoulder (or vice versa), they may contort their head and neck in an attempt to look through the sights with the left eye. Sometimes they have the head in the right position, but aim by using the opposite eye, usually with the embarrassing result of completely missing the target. The most effective way to correct this error is to have the shooter use a blinder on the rear sight. The shooter must not squint the non-aiming eye or use an eye patch while aiming.



Aiming with the wrong eye is preventable if a dominant eye test is done before shooters begin. Shooters should either fire from the same shoulder as their dominant eye or use a blinder on the rear sight.

Prevent or correct the error of aiming with the wrong eye by attaching a simple plastic or cardboard blinder to the rear sight. The blinder should be just big enough to block the view of the non-aiming eye (30mmx100mm).

Blinder On Rear Sight



JERKING THE TRIGGER.

With the front sight moving rapidly all over the target, new shooters often face an irresistible temptation to pull the trigger as quickly as possible in the vain hope of "grabbing a ten." This convulsive movement almost always makes the shot far worse. To teach correct trigger technique, the coach or an experienced shooter should demonstrate what a smooth, controlled trigger squeeze looks like so that the new shooter understands what it means to truly "press the trigger smoothly."

During a demonstration, watch closely as the trigger finger smoothly, and steadily presses the trigger to the rear.

A second key concept in trigger control is to learn to always center the sight picture or hold movements over the target and to continue squeezing as long as the hold is centered.

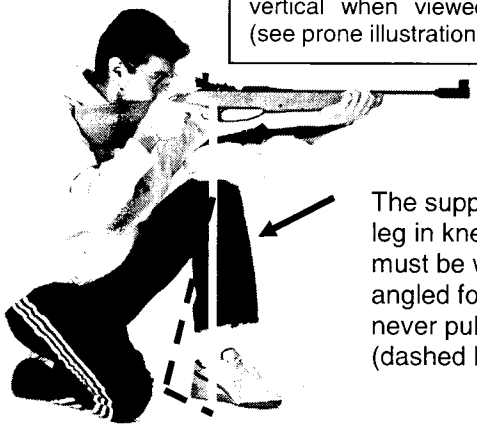
The Most Common Errors of Beginning Shooters

POSITION'S SUPPORT PLANE IS NOT VERTICAL. Each of the three positions have support planes that must be kept vertical to achieve a stable position. In the illustrations below, vertical support planes in each position are shown with solid white lines. The dashed lines show typical incorrect support planes that are not vertical.

For beginners, the first key to a stable standing position is **TO PLACE THE ELBOW DIRECTLY UNDER THE RIFLE!** If the elbow is directly under the rifle and rests on the side or hip, the support plane will automatically be vertical. The muscles in the support arm must be completely relaxed so that the forearm forms an inert brace that holds the rifle steady.

Look for a vertical support plane for the prone position in the left arm and sling. The correct arm position can most readily be seen from above. An imaginary plane cutting through the support arm should be perfectly vertical (solid line) when viewed from above.

The support plane for the kneeling position includes both the left arm and left leg. A plane cutting through the leg and arm should appear vertical when viewed from above (see prone illustration above).

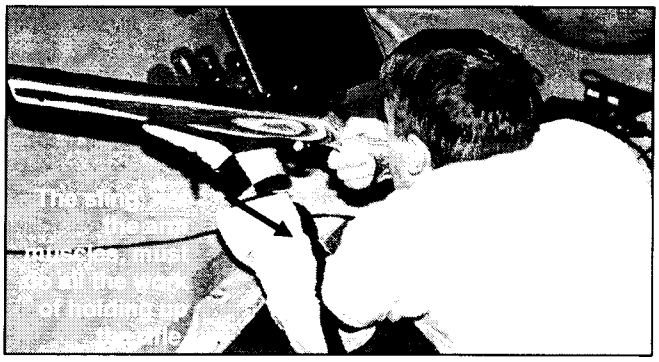


The support (left) leg in kneeling must be vertical or angled forward, never pulled back (dashed line).

A CRITICAL SAFETY TIP

New shooters often make the mistake of not controlling the muzzle while loading. When new shooters begin live firing, stress the critical importance of keeping the muzzle pointed up or downrange during the entire loading sequence.

IMPROPER SLING SUPPORT. In the prone and kneeling positions, one of the most common beginner's mistakes is not using the sling to support the weight of the rifle. Some new shooters even make the mistake of thinking it is easier to shoot prone or kneeling without a sling.



Pay special attention to learning the proper method of using and adjusting the sling. When the shooter is in position, to be sure the sling is adjusted tightly enough so that the **SLING SUPPORTS ALL THE WEIGHT OF THE RIFLE!** The support arm must be completely relaxed so that the sling, not the arm muscles, holds up the rifle.

LOSING CONTROL. One of the most egregious shooter errors is to become upset or frustrated and then to lose control. The most serious error occurs when an angry shooter acts out by throwing things, cursing or jerking open the rifle action after a bad shot. New shooters must learn to control their emotions at all times on the range, no matter what happens. When a shooter loses control, the coach must intervene immediately to make it clear that acting out is not tolerated on the shooting range and that all shooters are expected to practice self-control. When self-control is encouraged and praised, all shooters will quickly learn that this helps them get over mistakes more quickly.

I JUST CAN'T SHOOT VERY WELL! Negative thinking is another serious error. New shooters whose first results are lower than those of other shooters often want to believe they have no talent for shooting. When new shooters start thinking they "can't shoot very well," they need to know that there have been several Olympic champion shooters who ranked at the bottom of their training groups when they started shooting. New shooters must understand that practice and perseverance, not talent, will make them good shooters.

Mental Conditioning for New Shooters

This section of the ***CMP Rifle Instruction Guide*** covers basic mental conditioning and sport psychology concepts that can and should be taught to and learned by new shooters. This instruction is based on the conviction that the best time to begin learning the mental performance techniques that make the firing positions more stable, the shot technique more consistent and effective and post-shot analysis more productive is when a new shooter is first learning how to shoot. This "introduction to mental conditioning" is a gateway to the most important concepts of sport psychology and mental training and performance. Indeed, these concepts are considered by champion shooters to be so critical to attaining peak performance that they cannot be learned and practiced too early in the marksmanship experience.

Mental Training for New Shooters:

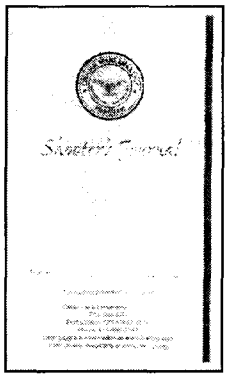
It is never too early to learn the mental skills needed for successful target shooting performances. Target shooting is an intensely psychological sport where mental skills make a big difference. There are several aspects of mental training that shooting coaches and new shooters must understand:

1. **Mental training is not just for advanced shooters—introducing basic mental skills to new shooters should be part of their basic instruction.**
2. **Learning mental performance skills should start with new shooters' very first practice sessions.**
3. **Learning basic mental skills can yield several important benefits for new shooters:**
   a. **Enhanced skill acquisition and skill development.**
   b. **Better consistency—fewer poor shots and scores.**
   c. **Faster improvement—in scores.**
   d. **Increased ability to shoot the same scores in competition that are fired in practice.**
4. **The most important question is what mental skills should be introduced to new shooters and how should they be practiced. Those skills are introduced in this page and the next.**

Step 1—Keep a Shooters Diary or Journal

A shooters diary or journal is a notebook in which shooters keep a written record of their scores, lessons learned and tasks to accomplish in upcoming practice sessions. This written record helps shooters remember the lessons and challenges of each shooting session. Making the effort to write down those observations helps the shooter learn to analyze and get the most out of each shooting session. All new shooters should keep a journal. It can be a loose leaf or spiral notebook or an easy to use introductory ***Shooter's Diary*** can be ordered from the CMP. Information that should be kept includes:

- Date and location of shooting activity.
- The type of shooting activity—position, distance, etc.
- Scores of any targets fired.
- Notes on what was learned during firing—what did you do well.
- Notes on any problems or things you need to do better.
- Specific tasks to work on during the next practice.



Step 2—Use a Shot Plan

A shot plan is a step-by-step plan that describes what a shooter does to fire each shot. When a shooter has a shot plan and follows it in firing each shot, the result is greater consistency, fewer poor shots and faster learning. There is no such thing as an ideal shot plan; each shooter must have his/her own plan. Each new shooter should develop, in writing, a shot plan that covers:

1. Getting into position—what specific steps does the shooter follow in loading and placing the rifle in the position?
2. Pre-shot—what does the shooter do to prepare to fire a shot—bringing the sights onto the target, breathing, placing initial pressure on the trigger, etc?
3. Firing the shot—what does the shooter do when actually firing the shot—concentration on sight picture, adding pressure on the trigger, etc?

When a shooter determines how he/she completes each of these steps, they must write those steps down in their Shooters Journal. This becomes the shot plan for that shooter. Each shooter needs a shot plan for each position. Beginning shooters may have a very simple plan that will become more complex as they advance. The key to having a shot plan is to use it: the shooter must follow the shot plan for every shot fired in practice and competition. The more the plan is repeated, the better the shooter will become at following it. The shot plan is also described on page 32.

Step 3—Develop the "Inner Position"

New shooters first learn the outer or physical positions. These are determined by how the body, legs, arms, head and rifle are configured or located in relation to each other. After developing good physical or outer positions, new shooters need to learn how to develop their "inner positions." The inner position involves relaxing, balancing and controlling the body. Learn to improve your inner position by doing the following:

1. Relax the support arm—first, take a few extra seconds after you bring the rifle into position and before you try to fire the shot to consciously think about relaxing the arm that supports the rifle. Allow the muscles in this arm to "let go," or totally relax.
2. Relax and control the body—next, take a few additional seconds to relax your whole body and let any tension in it go before you start to fire the shot.
3. Balance the body—finally, take a few seconds before you start to fire a shot in standing or kneeling to think about how the balance of your body over its support surfaces feels. In standing, the weight of the body-rifle system should feel balanced over the middle (balls) of the feet. In kneeling, the weight of the body and rifle should feel balanced over the right and left heels.

Develop a relaxed and balanced inner position for each shot by taking a few seconds before beginning to fire the shot to consciously check, relax and balance the "inner position."

Mental Conditioning for New Shooters

Step 4—Concentration Skills

Concentration is the ability to focus attention on a critical performance factor while simultaneously shutting out other thoughts or mental images. Especially during the firing of the shot, shooters must be able to concentrate very intensely. The ability to concentrate is a learned skill that is developed through practice. New shooters can develop their concentration skills by emphasizing these points during their shooting practices:

- Effective concentration requires the shooter to focus attention on the right thing. Beginning rifle shooters should think about just two things when they fire the shot—the sight picture and smoothly pressing the trigger.
- New rifle shooters can practice focusing attention on the sight picture by doing holding exercises before starting to shoot. After you begin to aim at the target, think only about your sight picture and trying to keep the aiming bull within the front sight ring. Repeat at least 10 holds while focusing on the sight picture.
- Develop trigger control awareness by dry firing. During dry firing, continue to watch your sight picture while focusing on smoothly pressing the trigger. Repeat at least 10 dry fire shots while focusing on making a clean trigger release.
- Effective concentration requires focusing on the same thing during each shot. Begin the firing of every shot by focusing your attention on the sight picture. Through dry and live firing you will determine how much attention to shift to the trigger release to complete the shot. Try to repeat this concentration focus the same way for every shot you fire.
- Concentration skills can be enhanced through visualization. Try pausing for a few seconds after you shoulder the rifle and before you begin to aim to visualize or imagine what your sight picture should look like and how a smooth trigger release will feel.

Step 5—Emotional Control

Anger, excitement and frustration are enemies of good shooting. Every shooter will have bad shots, poor scores and days when things do not go right. New shooters must learn the self-control and emotional control needed to deal with these bad experiences.

- Shooters must understand that when they fire a poor shot or score, they have not failed. Judge yourself not by your bad shot or score, but by the effort you made in trying to fire that shot or score correctly.
- Especially for beginners, simply focus on trying to do things right; at this stage scores do not indicate how well you are doing.
- Know how important it is for every shooter to stay in control; good shooters 'keep their cool' no matter what happens.
- If any shooters let their frustrations get the best of them and start acting out by yanking the rifle action open after a poor shot or throwing things or demonstrating emotion, it is important for the coach to intervene immediately by taking them aside to explain that this kind of behavior is not tolerated on a range and that it disturbs other shooters and hurts their own shooting.

Step 6—Relaxation

New shooters may not be ready for exercises like progressive relaxation, but they can learn how to apply basic relaxation.

- Always use as little muscle tension as possible to hold the rifle.
- Use your breathing to help you relax before firing a shot—each time you exhale, relax, feel calm, let the muscles go.
- Emphasize complete relaxation of the support arm (left arm) before starting to fire each shot.

Step 7—Goal Setting

Goals improve shooting performance and the quality of practices. New shooters should learn the concept of goal setting early. Apply these goal-setting principles:

- Set goals that are under your control. A goal to fire 20 shots standing each day this week is under the athlete's control. A goal to fire the high score on the team is not under the athlete's control because you cannot control other shooter's scores.
- Set performance or task goals, not outcome goals.
- Set challenging goals, not easy goals.
- Set realistic goals that can be achieved with effort.
- Make initial goals specific, short-term goals. For example, in my next practice session I am going to check my balance before each standing position shot.
- Focus goals on problems to correct or skills to be learned.
- Keep goals focused on what to do, a positive action, "I must always press the trigger smoothly." Never use negative goals like "I must stop jerking the trigger."

Step 9—Imagery and Self-Talk

Imagery and self-talk are two types of "self-regulation" that even new shooters can use. Sport science has proven that athletes who imagine performing a skill before or during practice will master that skill more quickly. An athlete who sees himself/herself as a good person who is trying to perform correctly will progress more quickly. Try these positive imagery and self-talk activities:

- Pause for a few seconds before starting each shot to imagine or see a mental image of a good sight picture.
- Pause for a few seconds before starting each shot to imagine how your trigger finger will smoothly press the trigger.
- Before you pick up the rifle, imagine how you will fire the complete shot. Some do this best by using a video-camera view—seeing themselves from the outside. Others do this best by imagining how they will feel or what they will see from the inside.
- Replace negative thoughts like "I'm never going to shoot a ten" with a positive message like "I know I will shoot a ten if I keep working on it."

Step 10—Find Additional Resources

These tips on mental conditioning are only the first steps for shooters to take in developing their mental skills. Sport psychology is a rich and complex field. An excellent starter resource to use in learning more is ***Coaches Guide to Sport Psychology*** by Dr. Rainer Martens. Another excellent, though more advanced, resource is ***In Pursuit of Excellence*** by Terry Orlick. Both are available from Human Kinetics Publishers, http://www.humankinetics.com/.

This section of the ***CMP Rifle Instruction Guide*** covers what happens after new shooters complete a basic marksmanship course or have received instruction in the basic fundamentals for firing the shot and shooting in the three firing positions, prone, standing and kneeling. The sport of shooting is a sport where fine motor skills are tested to the extreme; this means that in shooting, natural ability has little to do with ultimate success while the quality and quantity of practice has everything to do with the results that shooters achieve. After receiving basic marksmanship instruction, the coach and any new shooters who want to advance to become active in rifle team or competition shooting activities must set up practice programs where they can perfect the skills they learn and continue to acquire new knowledge about marksmanship.

Why Practice is Important

Marksmanship with rifles, pistols and shotguns is a motor control skill that can only be learned through repetition and practice. Marksmanship is not a body of knowledge that can simply be learned and applied.

Safety instruction can be given and learned perfectly, but until new shooters have frequent opportunities to actually handle guns during range firing activities, they will not develop a continuing practical awareness of the muzzle, action and trigger to be able to immediately and effectively apply basic safety rules whenever they handle a gun.

A new shooter can be taught to assume a firing position that is technically perfect, but when they attempt to aim at the target, the movements of the muzzle will trace a large hold area on the target. In the standing position, most beginners will have a hold movement area that is larger than the scoring rings on a standard target. Developing the kind of steady hold that a champion has can only be done by completing tens of thousands of correct repetitions of a firing position and shot technique that is used in that position.

REGULAR PRACTICE IS THE KEY TO PROGRESS AND SUCCESS IN SHOOTING

Shooting a Regular Course of Fire

After new shooters learn all three positions and good shot techniques, they are ready to shoot a regular or complete course of fire. Athletes in any sport begin by learning components of the sport first. In basketball, athletes first learn passing, dribbling, defensive techniques and various types of shots. Then they combine those skills to play a complete game. It is the same in shooting. New shooters learn aiming, breath control, trigger control and the three shooting positions. Then those skills are combined to fire a complete course of fire. In position rifle shooting, a "3x10" or "3x20" with 10 or 20 shots in each position is the most common course of fire. A 3x10 or 3x20 event must include:

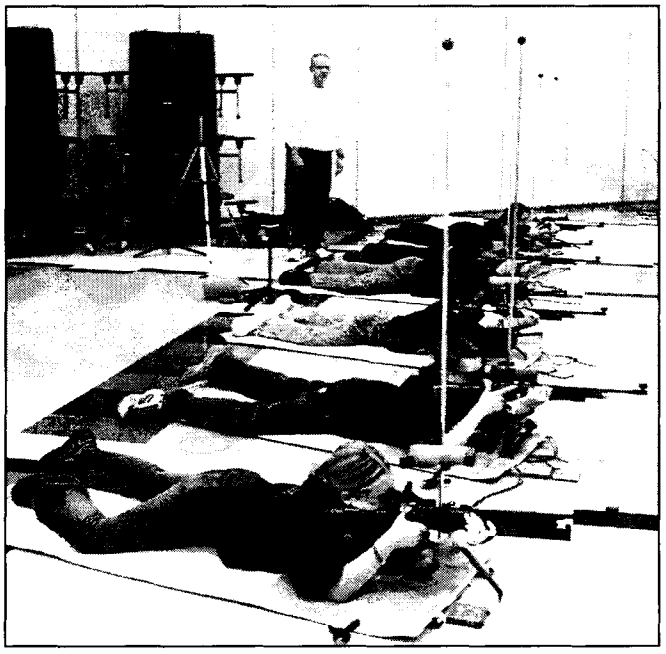
- Preparation period (normally 10 minutes)
- Unlimited sighters and 10/20 shots prone
- Position change period (normally 5 minutes)
- Unlimited sighters and 10/20 shots standing
- Position change period (normally 5 minutes)
- Unlimited sighters and 10/20 shots kneeling

At first, time limits should not be enforced, but after a few practices, official time limits may be used to simulate competition conditions.

How to Practice

It is not enough to just practice; **shooters must practice correctly** to really progress in shooting. Some marks of good practice in the sport of shooting are:

1. **Frequency**. The more times a week a shooter practices, the better he/she will become. A shooter who practices three or four times a week is going to become better than a shooter who only shoots one time a week.
2. **Difficulty**. Shooters must spend more time practicing the most difficult position, standing, and the next most difficult position, kneeling.
3. **Problem Solving**. Whenever a shooter is having difficulty with a position or some phase of shot technique, they must spend extra time in practice trying to find solutions to that particular problem.
4. **Responsibility**. A critical idea in making progress in shooting or any sport is to learn to take responsibility for every shot and every score fired. Never throw away a bad target; instead, honestly look for something to learn from it. What should you have done to have fired a better score? Think about the challenge of coming back and trying to shoot better on the next target.
5. **Goal Setting**. Set short-term goals for each practice session. These goals must always be realistic and attainable. They should focus on something you want to try to accomplish in today's practice. A practice goal might be to keep all standing shots inside a particular scoring ring, or to work on a particular shooting technique problem.



After shooters learn to fire in all three positions, they should begin shooting complete three-position courses of fire. Each week in practice they should shoot one or two complete 3x10 or 3x20 courses of fire (10 or 20 record shots in each of the three positions). After they do this several times, they will be ready to enter their first competitions.

Learn Basic Competition Rules

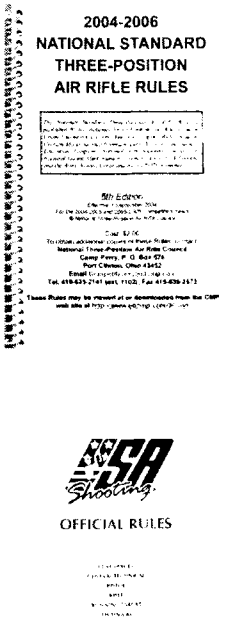
When new shooters begin to fire complete courses of fire, it is a good time to learn basic competition rules. Here are some rules concepts for new shooters to learn and apply:

- **Sighting Shots**. These are practice shots that must be fired at target bulls designated as sighter targets. Indoor BB gun, air rifle and smallbore targets are printed with two sighting bulls in the center of the target. Sighters are used to determine if sights are properly adjusted and to prepare for record firing. Sighters must be fired before record shots begin, but the number fired is unlimited.
- **Record Shots**. Indoor competition targets have ten record bulls numbered "1" thru "10." One shot must be fired at each record bull. Record bulls do not have to be fired in numerical order. If a shooter makes a mistake and fires two shots at one bull, one other bull must be skipped so that the target card still has only 10 record shots.
- **Time limits**. In competitions, there are time limits for each position. Shooters must fire both their sighting shots and record shots within the time limit. Time limits in a 3x10 air rifle event are 20 minutes prone, 20 minutes standing and 15 minutes kneeling. 3x20 time limits are 30 minutes prone, 40 minutes standing and 30 minutes kneeling.
- **Preparation Period**. Before firing begins and after targets are hung, shooters have a preparation period (usually ten minutes) during which they may handle their rifles, remove CBI/ECIs (safety indicators), get into their firing positions and dry fire. They may not charge gas or load, however.
- **Changeover Period**. After each position is fired and targets have been changed, shooters have a changeover period (usually five minutes) during which they can handle their rifles, remove CBI/ECIs and prepare for firing the next position. Dry firing is permitted during the changeover.

Introduce the Rulebook

Official rulebooks govern the conduct of all shooting competitions. When shooters begin to shoot complete courses of fire in practice, it is time to introduce the rulebook. Official rulebooks used by junior shooting programs include:

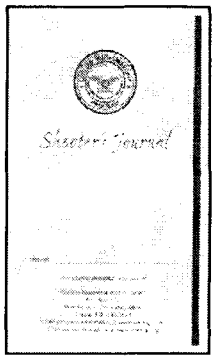
- BB Gun. ***NRA BB Gun Rulebook***. Contact NRA.
- Three-Position Air Rifle. ***2004-2006 National Standard Three-Position Air Rifle Rules***. Download from http://www.odcmp.com/3P/Rules.pdf or order from CMP.
- Smallbore Rifle. ***USA Shooting Official Rules***. Contact USA Shooting, http://www.usashooting.com/usaShooting.cfm.
- Smallbore Rifle. ***NRA Smallbore Rifle Rules***. Contact NRA.



Position air rifle and smallbore rulebooks

Keep a Shooter's Diary or Journal

One of the best ways to improve shooting skills and scores, even for new shooters, is to keep a Shooter's Diary or Journal. A diary should contain a written record of every practice session and competition. Shooters should record the date, location, scores fired and other pertinent information in their daily diary entries. Each day's entry should record at least one or two things that the shooter learned in that session. Diaries should also record problems encountered that need work in the next practice session. Writing entries in a Shooter's Diary teaches shooters to analyze and think about their shooting and to learn as much as possible from every shooting practice session.



The CMP has Shooter's Diaries available free on request.

Develop and Practice Shot Plans

A key to marksmanship success is consistency. This means doing exactly the same thing at the same time during each shot. The best way to develop consistency is to develop and use "shot plans." Shot plans are step-by-step outlines of specific things done to fire a shot from loading to follow-through. Each shooter's personal shot plan should include these steps:

1. **Loading**. What specific steps are followed to cock and load the rifle?
2. **Placing Rifle in Position**. How does the shooter make sure the rifle is placed in the same location for each shot?
3. **Aligning Rifle with Target**. How is the front sight brought into alignment with the target?
4. **Pre-Shot Checks**. What specific checks are made before each shot—most shooters check balance and relaxation before starting to aim on every shot (pre-shot routine).
5. **Breathing**. How is breathing done before final aiming begins?
6. **Aiming**. How does the shooter look at the sights?
7. **Trigger Control**. When does trigger pressure begin? What specific steps are followed to add pressure and break the shot?
8. **Focus While Firing**. Where is the shooter's visual focus (concentration focus) when trigger pressure is increased?
9. **Follow-Through**. What specific follow-through steps are done after each shot?

When developing and using shot plans to help you improve faster and advance further, remember:

- There must be a shot plan for each position.
- There is no one shot plan that is right for all shooters—each shooter should have his/her own shot plans.
- Use shot plans to guide the firing of each shot during both practice and competition.
- Shot plans develop consistency and help combat the effects of nervousness in competition.
- The key to progress is to follow the plan on every shot—in practice and in matches.

Getting Started In Competitions

This section of the ***CMP Rifle Instruction Guide*** introduces new shooters to competitions and how to get started in them. New shooters become interested in the sport of shooting to learn about gun safety or because becoming a skilled marksman is exciting. Most, however, also are attracted by the challenges of competition shooting. To them, demonstrating "excellence-in competition" is the ultimate test of their marksmanship skills. There are many different types of competitions and competition goals. Some shooters want to participate, to have fun; some seek the challenge of competing against themselves; some strive to excel in competitions against other shooters at local, state, national or international levels. All, however, are valued participants in a sport where the greatest significance is placed, not on being a spectator, but on being a participant and competitor.

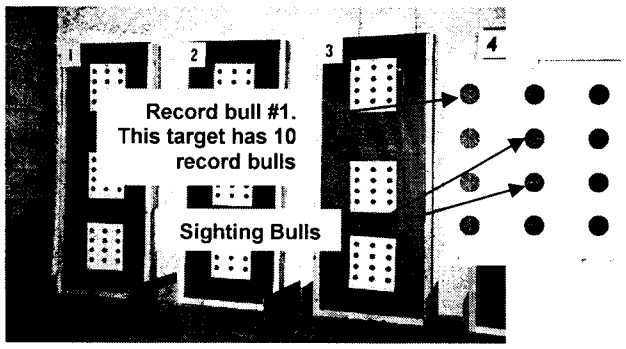
Why Attend Competitions?

When new and young shooters learn about shooting, they are introduced to a sport. After learning the different skills of target shooting, shooters learn to put those component skills together to fire a complete course of fire. Scores fired in a course of fire measure how well the shooters have performed. Their scores provide a basis for comparing results and for conducting competitions.

At first, new shooters compete only with themselves and their previous scores or with other new shooters in their team or club. Some new shooters are satisfied to learn basic marksmanship skills and do not go on to try formal competitions. There are, however, many important reasons why new and beginning shooters should at least try competition shooting.

1. **Shooting is a sport--one of the primary reasons people learn sports skills is to test those skills in competitions.**
2. **Most of the life lessons that shooting teaches so well are best taught through competitions where striving to excel, focus, self-discipline and self-control are stressed.**
3. **Competitions are fun—going to a match, seeing a new part of the country, meeting new friends and experiencing the excitement of competitions all can be tremendously enjoyable.**
4. **Competitions give purpose and fulfillment to marksmanship training—why continue to practice if the skills you develop cannot be tested in competition.**
5. **The greatest challenges in sports come from trying to get better, from striving to excel and ultimately from setting goals to fulfill in important competitions.**
6. **COMPETITIONS ARE THE ULTIMATE TEST OF A SHOOTER'S GOALS, PREPARATION AND TRAINING!**

Target and Range Terminology



Shooters are assigned to shoot on numbered firing points. Targets are placed at proper heights for the standing (top), kneeling (middle) and prone (bottom) positions.

COMPETITIONS ARE THE ULTIMATE TEST OF THE SHOOTERS GOALS, PREPARATION AND TRAINING!

Step 1—What Competitions Should You Attend?

The first step in going to a competition is finding a competition to enter. When selecting competitions, new shooters should keep these things in mind:

1. **Postal Matches.** A postal is when competitors fire on their home ranges and compare scores via the Internet, fax or mail. Postals make it possible to conduct large competitions inexpensively or to have competitions when none are available close to home. Some teams and clubs organize their own postals. The Army, Marine Corps and Navy JROTC commands conduct large postal competitions for JROTC units. The American Legion, National Guard Bureau and NRA all organize a variety of national postals in air and smallbore rifle. Postals are the easiest and most accessible competitions in which to compete. Postals are a very good way to get started in competitions, but they do not give shooters all of the experiences that competitions afford.
2. **Shoulder-to-Shoulder Matches**. A shoulder-to-shoulder match is when all competitors in a match compete on the same range during the same time period. Shoulder-to-shoulder matches give shooters the full experiences of sports competition. They vary in size from small local events with two or three teams to large regional junior and open matches to major national and international competitions. When starting in shoulder-to-shoulder competitions, it is best to start small. New shooters' first matches should be local competitions with one or two teams or clubs from neighboring cities. After you become comfortable with competition firing procedures, you will be ready for larger competitions.
3. **How to Find Competitions**. The CMP, NRA and USA Shooting all publish coming events lists or post them on the Internet. Start by checking their web sites for upcoming events. The CMP ***Competition Tracker*** web site at http://clubs.odcmp.com/cgi-bin/index.cgi lists all current competitions sanctioned by the CMP. Once you become active in competitions, you will become part of a network that keeps you informed about upcoming competitions.

Step 2—Rules New Shooters Need to Know

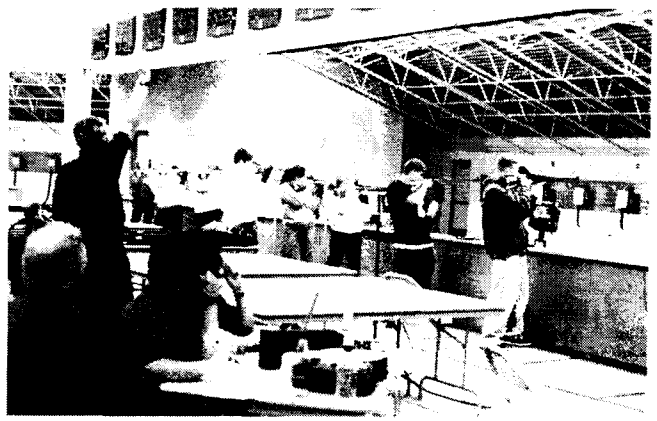
Before new shooters enter their first competition, they need to know basic competition rules and terms. Shooters should already understand who the range officer is and what the basic range commands are. Here are some other important rules and competition terms:

1. **Rulebook**. Every competition should be governed by a rulebook that provides detailed rules to control the competition and resolve any issues or disputes. Three-position air rifle matches are usually governed by the ***National Standard Three-Position Air Rifle Rules*** (Bluebook). Smallbore rifle and other matches may be governed by either USA Shooting or NRA rules.
2. **Course of Fire**. Every competition has a course of fire that specifies the number of shots, firing distance, target and firing positions for that competition. Common courses of fire in air rifle and smallbore shooting are three-position events where competitors fire 10 (3x10) or 20 (3x20) shots in the prone, standing and kneeling positions. Standing-only courses also are common.
3. **Individual and Team Events**. Competitions may be for individuals only or for individuals and teams. Team scores are the totals of four (occasionally two, three or six) individual shooters who are named as members of a team before firing starts.
4. **Final**. Many Individual competition events now end with a final. In a final, the top eight individual shooters, after the regular course of fire is complete, fire a "final" round with an additional ten shots in the standing position. Finals shots are fired one-at-a-time, with separate commands and a 75 second time limit for each shot.
5. **Relay/Firing Point**. When there are more competitors in a competition than there are firing points on the range, competitors are divided into groups of shooters called "relays." Shooters are assigned or "squadded" to fire on a specific relay and firing point.
6. **Start Time**. The program or match schedule gives the start time for each relay of shooters. The start time is when firing actually begins, not when you should arrive. The preparation period takes place before the start time. Competitors must report to the range well ahead of the start time to be ready to move their equipment to the firing line before the preparation period begins.
7. **Preparation Period**. Before firing in a match begins, the Range Officer announces the beginning of a "preparation period." This is when competitors set up their equipment and prepare to fire. Preparation periods may be ten, five or three minutes, depending upon the rules used. During the preparation period, shooters may get into position, remove CBI/ECIs, aim and dry fire. No gas may be expelled from an air gun, no one may load a cartridge or pellet and no shots may be fired.
8. **Sighting Shots**. Sighting shots are practice shots that must be fired at the sighting bulls of the competitor's target. Targets used in competition typically have one or two sighting bulls. Any sighting shot not fired at a sighting bull must be scored as a record shot. Sighting shots do not count in the competitor's total score.
9. **Record Shots**. Record shots are shots that count in the competitor's total score. On indoor targets, competitors normally fire just one record shot at each record bull. On outdoor targets, competitors usually fire five or ten shots at a bull.
10. **Time Limit**. In most competitions, each position or stage is fired separately and there is a specific time limit during which shooters must fire sighting shots and the proper number of record shots. Any shot not fired within the time limit or that is fired after the range officer commands **STOP** must be scored as a miss.
11. **Coaching**. Competitors in sporter class air rifle events may receive coaching assistance during the firing of sighting shots. Otherwise, no coaching of competitors on the firing line is permitted. If a competitor wishes to speak with his/her coach, get permission from the Range Officer and then leave the firing line to do so.
12. **Changeover Period**. After finishing a position or stage of fire, immediately open the action and insert a CBI/ECI. Competitors must keep rifles grounded and untouched while targets are changed. Competitors are then given a "changeover period" when they can set up their equipment for the next position and prepare to fire in it. Dry firing is permitted during the changeover period.

Step 3—How To Prepare for a Competition

The best way to have a successful first competition is to prepare for it.

1. **Enter and Make Arrangements**. Once you decide which match to enter, submit your entry to the match sponsor. If travel, motel or other arrangements are required, make them in advance.
2. **Know the Match Rules**. Review the basic rules for competitions (Step 2) before the match. Obtain a copy of the rulebook to be used and review it before the competition.
3. **Practice the Course of Fire**. Be sure to practice the course of fire that will be used. The Range Officer should use the same range commands, preparation and changeover periods and time limits that will be used in the match.
4. **Focus on Your Shot Plans**. All shooters should have shot plans which they use in practice. Now shooters must resolve to follow the same plans at the match. The best preparation for competition is good practice—shooters should shoot the same way in matches that they shoot in practice.
5. **Compete with Yourself**. When you fire in a match, try to compete only with yourself and the scores you shoot in practice, not with other competitors. Shooters who strive to shoot the same scores they fire in practice will do much better than those who think they must shoot for awards or to beat other shooters.



Step 4—Things to Do at the Match

When you arrive at the match, there are several things you can do to help make it an enjoyable and positive experience.

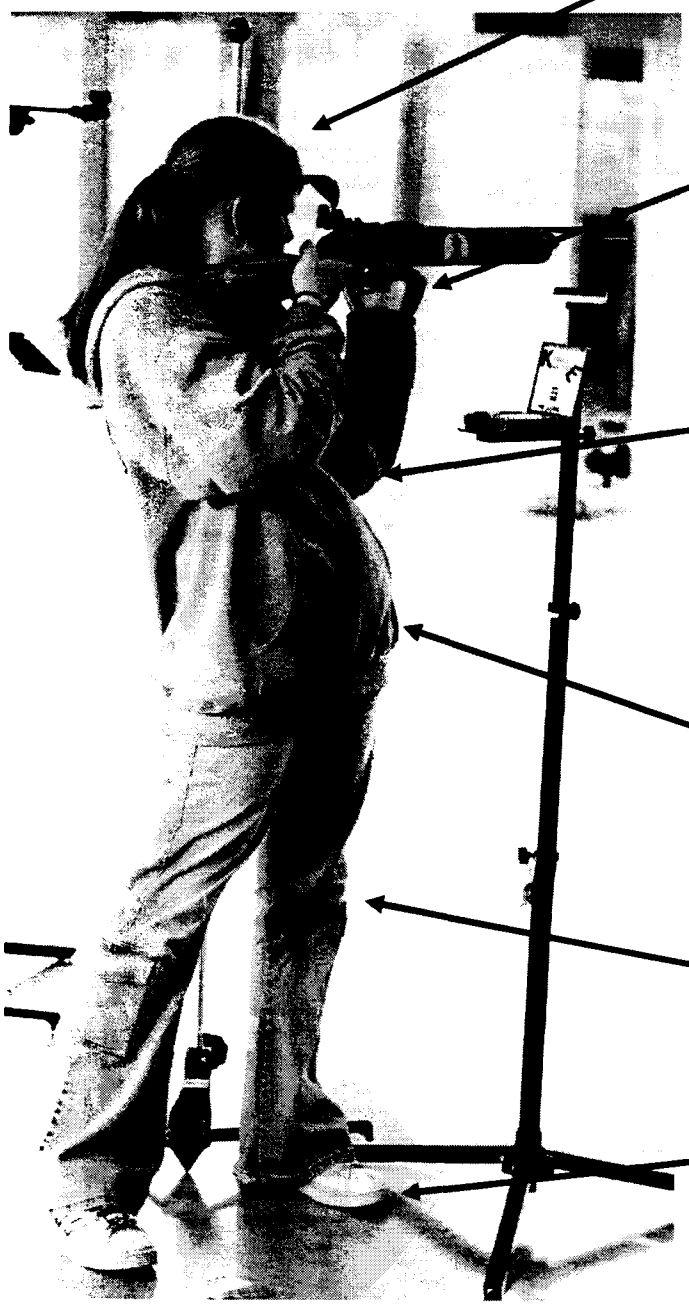
1. **Arrive Early—Be Prepared**. Be sure you have enough time to get your equipment ready and to be settled down and relaxed before your relay is called to the line for the preparation period.
2. **Stay Focused on Preparation**. There are always lots of distractions at matches. Instead of getting caught up in everything that is occurring around you, stay focused on the things you learned in practice to do to prepare for firing and doing your best.
3. **Nervousness is Real**. Even champion shooters are nervous in competitions. Accept that you will experience some nervousness. These feelings are normal and can help you perform better. The best way to deal with nervousness is to focus on your shot plans and on repeating them just like you do in practice.
4. **Malfunctions or Problems**. If your rifle or ammunition malfunctions, or if there is a problem with a target, raise your hand so that a range officer can see it and come to assist you.
5. **Competition Ethics**. Sportsmanship is important in all sports. In shooting that means keeping your positions and equipment within your firing point, not talking or acting out on the range and cooperating with match officials.
6. **After Firing**. When you finish, quickly remove your equipment from the firing line. Then check your scores. Match officials will help you resolve any issues regarding your scores. Be sure to thank the match officials for their work in conducting the match.

Improving the Standing Position

This section of the ***CMP Rifle Instruction Guide*** covers the next steps in standing position instruction for new shooters after they have mastered the standing position basics described in "Learning the Standing Position" on pages 17-18. This section identifies a detailed series of advanced position features. Regard these different position features as a check list from which only one position feature at a time can be selected for trial. Study the entire article first, then pick out one specific position feature that you want to examine. When you decide to try one of these features, test it through a controlled experiment. Change only that one position feature; then try it for several days in practice. Finally, decide if the change resulted in an improvement. If it does, then incorporate it into your standing position. After that you can experiment with another feature or technique.

Standing Position Check Points

The first step in improving a position is to make sure the basic body position is correct. The standing positions practiced by each shooter should correspond with the check points shown and described on this page. If your position does not follow each check point, work to correct the position, one check point at a time.



1. Correct Head Position. The head should be nearly erect. Correct head position starts with the positioning of the butt plate. It needs to be up in the shoulder. The head can tip forward towards the target slightly, but not to the side (right). If the head tips to the side (right), try canting (rotating) the rifle back to the left slightly.

2. Correct Support Arm Hand/Wrist Position. There is no one best hand/wrist position for every shooter. The best hand/wrist position for each shooter is the one that raises the sights to the level of the target when the butt plate is up in the shoulder and the head is nearly erect. See "***Choosing the Correct Support Arm Hand/Wrist Position***" on the next page.

3. Support Arm Relaxed on Side or Hip. A critical key to standing position stability is learning to relax the support (left) arm completely so that it rests on the side or hip. No muscle effort should be used to hold up the rifle. The support arm should act like a brace that holds up the rifle. Make sure the elbow is directly under the rifle. Also, make sure it is placed in the same location for each shot. If the elbow is not under the rifle or if it changes location from shot to shot, balance problems will result.

4. Hips in Line with Feet, Left Hip Under Rifle. Correct hip placement makes a big difference in developing an unstrained, stable position. The hips should be directly over the feet, not turned towards the target at all. It is especially important to be sure the left hip is under the rifle and the support arm that holds the rifle.

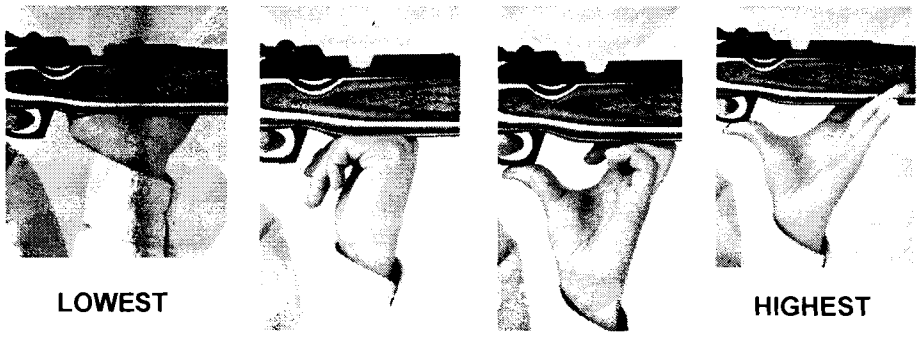
5. Legs Straight and Relaxed. The legs should be straight, not bent, with the leg muscles relaxed. The shooter should use just enough tension to hold the legs straight and keep the body balanced over the feet.

6. Feet Turned 90 to 100 Degrees from Target. Be sure the feet are turned 90 to 100 degrees from the target. This assures that the side is towards the target so it can provide a solid column of support from the rifle down though the support arm and hip to the forward foot.

Improving the Standing Position

Choosing the Correct Support Arm Hand and Wrist Position

A correct standing position is one where the rifle is placed up in the shoulder high enough so that the head is nearly erect or tipped forward only slightly. To evaluate this, check the head position and the location of the butt plate in the shoulder. If the head is tipped down too far, the rifle and head must be raised by using a higher support arm hand/wrist position. You should also check the angle of the spine. It should be bent to the rear just slightly, about 10-15 degrees. If the shooter is standing perfectly erect and the body bend is less than 10 degrees a shorter support arm hand/wrist position may be needed. If the shooter bends or leans excessively to the right, a higher support arm hand/wrist position must be used. The basic support arm hand/wrist positions are shown here in the order of increasing height. Correct the head position or body angle by choosing an alternative hand/wrist position.

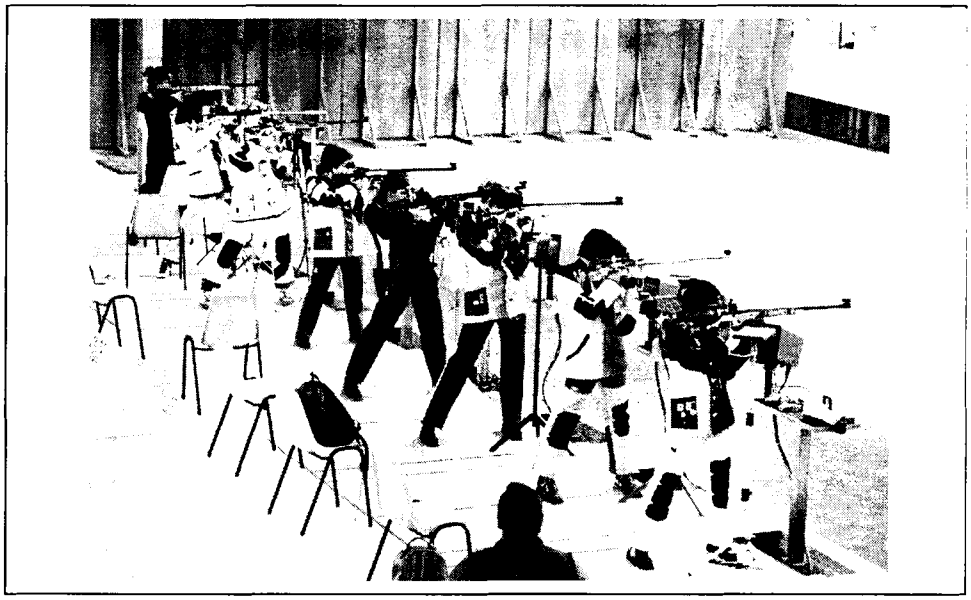


LOWEST HIGHEST

Standing Position Variables

The standing position checkpoints illustrated and described on the preceding page are features found in every good standing position. These standing position checkpoints can be identified in the positions of virtually every outstanding shooter. There are also standing position features that vary from shooter to shooter. These variables depend upon personal choice or body proportions. The support arm hand/wrist positions (shown on left) are a classic variable with the correct variation to be selected according to relative arm and torso lengths. The photo below shows eight of the best women rifle shooters in the world in a recent World Cup 50-meter rifle final. The six position checkpoints described on the previous page are found in every position while some other features of their standing positions show significant variations.

Feet Positions. Every one of the shooters in this photo have their feet turned 90 to 100 degrees from the target. There are no exceptions. The width of their feet positions is very different, however. Shooters #1 and #4 spread their feet shoulder width or less. Shooters #2, #3 and #5 have relatively wide foot positions while the other shooters have foot positions in between the two extremes. When deciding the correct foot position for you, it is important to make sure your feet are turned 90-100 degrees from the target, but how wide you spread your feet is a matter of personal choice to be determined by comfort and whether the hips are kept level (feet should be closer) or the forward hip is elevated (feet must be wider).



Hip and Leg Positions. Every one of the leading shooters in the illustration has the left hip directly under the rifle, but how they position their hips varies. Shooters #1, #4, #5, #7 and #8 have their hips relatively level with both legs positioned at the same angle to the floor. Shooters #2, #3 and #6 all elevate the forward hip so that the forward (left) leg is nearly vertical and the rear (right) leg stands at a greater angle to the floor. Shooters have won gold medals and set records using both techniques. Some new shooters will be comfortable with their hips level; others will feel more stable when they elevate the forward hip. Shooters must understand that they must make a choice regarding how they positions their legs and hips.

Right Arm Positions. Notice the differences in how these shooters position their right arms. Shooters #1, #4 and #5 all keep their right elbows high so that the bent arm is almost level. Shooters #3, #6 and #8 drop their right elbows down with the arm relaxed on their sides. Shooters #2 and #7 hold their arms half way in between. How to hold your right arm is another variable where you must decide which variation you prefer. Some hold their arms up and may even use the right hand to grasp the rifle more tightly or to pull it into the shoulder. Some strive to relax the arm and drop it to the side. Others choose a variation between the two extremes. No matter which variation is chosen, the right wrist must be held straight.

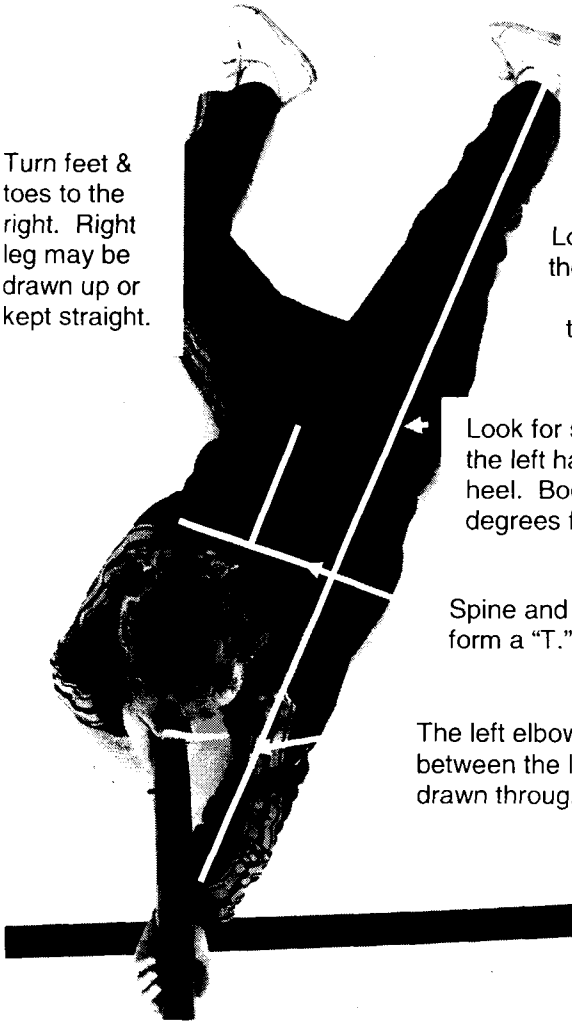
Back Bends. These champion shooters also demonstrate significant variations in how far they bend their backs or torsos to the side (right). Shooters #4 and #7 stand almost erect. Shooters #1, #6 and #8 have very slight back bends. Shooters #2, #3 and #5 all bend their torsos much more. Keeping the weight of the body-rifle system balanced over the feet is the critical factor in this choice. The body must be bent just enough to keep the muscles of the back relaxed so they do not strain to hold up the weight of the rifle.

Improving the Prone Position

This section of the ***CMP Rifle Instruction Guide*** covers the next steps in prone position instruction. Like the section on "Improving the Standing Position" on the preceding two pages, it provides a long list of position features and firing techniques. These are position features and firing techniques that champion shooters and leading coaches identify as keys to developing an absolutely stable prone position that is capable of consistently producing medal-winning scores at the highest levels of national and international competitions. These position features and techniques work because they enhance stability while at the same time allowing the body to relax and perform its best over an extended period of time. Again, try them one feature at a time.

Prone Position Check Points

The first step in improving a position is to make sure the basic body position is correct. The prone positions used by each shooter should correspond with the check points shown and described here. If a shooter's position does not correspond with these checkpoints, work to correct the position before working on the prone position improvement techniques on the next page.



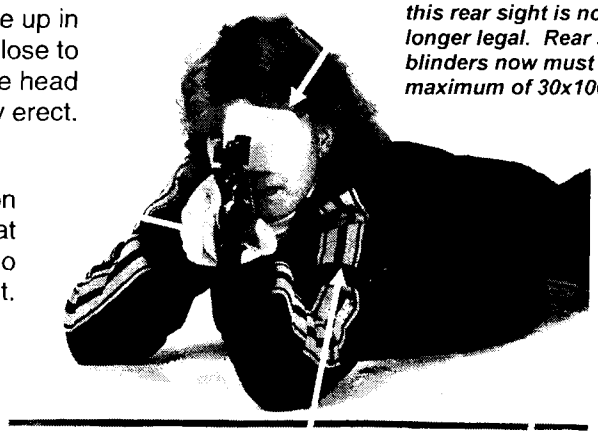
Turn feet & toes to the right. Right leg may be drawn up or kept straight.

Place the butt plate up in the shoulder and close to the neck so that the head is held reasonably erect.

Locate the left hand on the rifle forearm so that it raises the sights to the level of the target.

Look for straight line from the left hand to the left heel. Body is turned 20 degrees from line of fire.

Spine and shoulders form a "T."



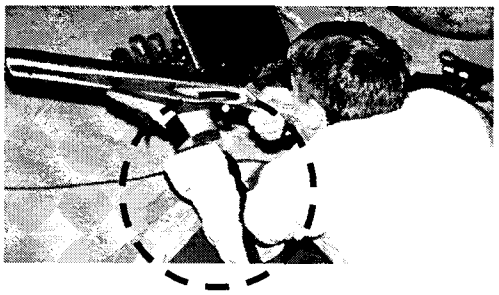
Note: The blinder on this rear sight is no longer legal. Rear sight blinders now must be a maximum of 30x100mm.

Sling is high on arm, adjusted to fully support weight of rifle.

Body weight rests primarily on left side and left elbow.

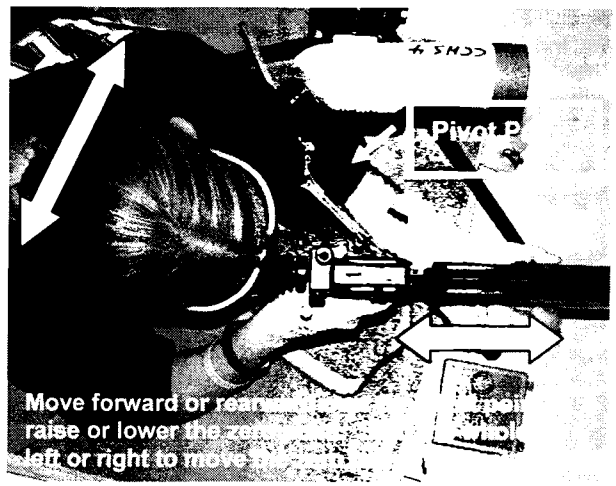
The left elbow is placed directly under an imaginary line between the left hand and left heel. An imaginary plane drawn through the left arm and sling should be vertical.

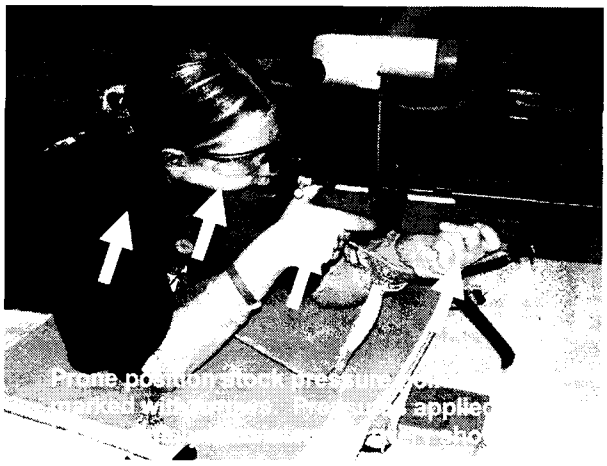
1. Relax the Left Arm. After making sure that the body position and all the external position checkpoints are correct, the next step in improving prone position stability and scores is to make sure the left arm that supports the rifle is fully relaxed during the firing of each shot. The first thing to check is sling tension—is the sling adjusted so that it supports the weight of the rifle and upper body? The sling should be adjusted so that no muscle tension in the left arm is used to support the weight of the rifle. How the left wrist or hand is held makes a big difference too. Keep the wrist straight and place the hand under the fore end so that the rifle rests on the base of the thumb and not out on the fingers. Finally, learn to consciously relax the muscles of that arm before each shot. Use breath control to do this. Each time you exhale, let the muscles in the left shoulder, arm and hand "go" so that there is not tension in them.



Improving the Prone Position

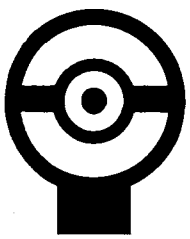
2. Natural Point of Aim. A prone position that is anatomically correct and physically relaxed has a "natural point of aim. This is called the position's NPA or "zero-point." This is where the position points most naturally. One of the best ways to improve prone position results is to precisely align the position's zero point with the aiming bull that is being fired at on that particular shot. New shooters should first learn to check their position's zero point by putting the rifle in position and starting to aim. They should then close their eyes, relax the arms and shoulders and let the rifle point where it naturally wants to point. Open the eyes and see where it points. If the rifle points somewhere off the target, adjust the position by rotating or shifting the position over the prone position pivot point, which is the left elbow. To make horizontal changes, use the feet to move the body left or right while keeping the left elbow in place. To make vertical changes, use the feet to push the body forward or rearward while keeping the pivot point in place. Close the eyes and check the zero point again. It may take several small shifts to get the zero point in the center of the aiming bull. As skill at doing this improves, the shooter will learn to check the zero point before each shot with both eyes open and to adjust the zero point for each bull on a 10-bull target.





3. Stock Pressures. The pressures placed on the rifle with the shoulder, cheek, right hand, left hand and sling must be consistent. If any of these pressures change, they can change the way the rifle recoils and, since the rifle begins to recoil while the bullet or pellet is still in the barrel, change where the bullet or pellet strikes on the target. A change in shoulder, cheek or hand pressure or sling tension can change a shot that would have been a ten into a nine. Develop consistency in controlling these pressures during practice. Shoulder pressure may be light, moderate or firm, but it must always be the same. Cheek pressure may be light or moderate. Heavy cheek pressure usually strains the neck muscles. The grip of the right hand (trigger hand) is usually light or moderate. Gripping the pistol grip too tightly can inhibit the free movement of the trigger finger. The left hand and arm must be completely relaxed; any tension here will definitely affect the shot. Sling tension depends upon how tightly the sling is adjusted and how much shoulder pressure is used. In each case, absolute consistency is the key.

4. Precise Aiming. In prone position shooting, real progress comes when a shooter learns to concentrate not just on getting a good sight picture, but on getting a perfect sight picture. Do not forget that trying to use a front sight ring that is too small makes it more, not less, difficult to see and repeat a perfect sight picture. Each time the shooter aims, he/she must strive for a perfect sight picture while seeking to control hold movements by relaxing the arms and upper body as much as possible.



5. Precise Sight Adjustment. One of the most critical keys to shooting good prone scores is keeping shot groups zeroed or centered on the ten ring. To do this, the shooter must learn to think about shot groups formed by the last two to five shots. Use the two sighter bulls to be sure the group of most recent shots is centered as precisely as possible. Be sure to adjust that group to the center before going for record. When shooting on 10-bull targets, learn to see an imaginary shot group formed by the last two or three shots. If that imaginary shot group is off center, make a sight adjustment to move it to the center. Usually one or two clicks of adjustment is sufficient. Keeping the sights precisely adjusted during prone shooting means making small adjustments from one day's shooting to the next. It also means making small adjustments during the firing of a 10 or 20 shot series. Keeping shot groups zeroed is a dynamic activity. Rifle zeroes are not the same from one day to the next and do not always remain the same throughout a series of shots.

6. Rifle Accuracy. Prone shooting is a game of accuracy and perfection. Not only must the position be stable and the techniques applied in firing the shot be consistent, but the rifle-ammo combination must be accurate. To improve prone results, make sure the following steps are taken to assure that the rifle and ammo perform as well as possible:

1. Clean the barrel properly. For optimal accuracy clean smallbores after every 200 rounds and air rifles after every 500 to 1000 shots.
2. Conduct bench or machine rest tests to select the lot of match-grade ammunition or pellets that shoots the smallest test groups in that rifle.
3. Always check sight and action screws to make sure they are tight. Learn how to adjust rifle bedding screws to achieve the best accuracy performance.

Improving the Kneeling Position

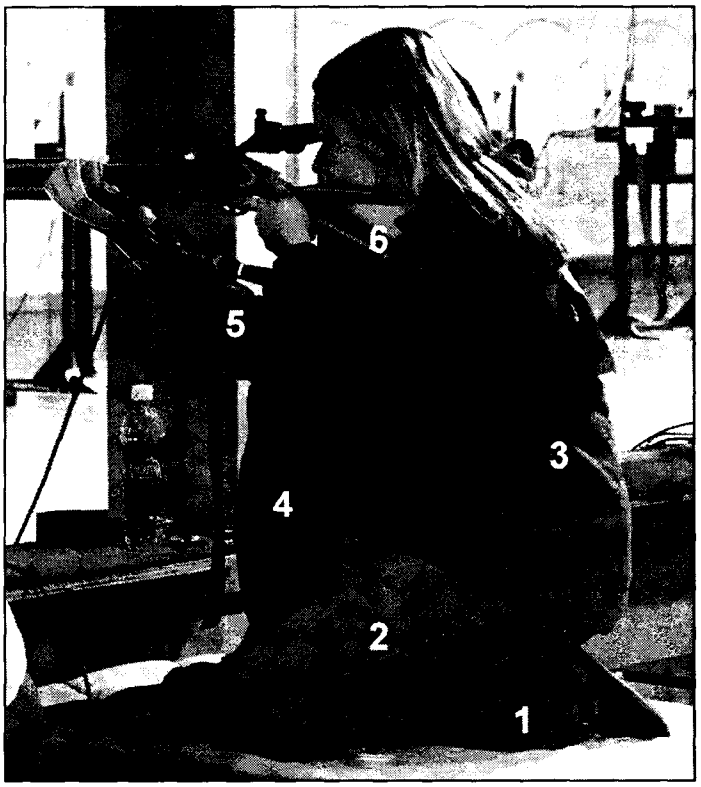
This section of the ***CMP Rifle Instruction Guide*** covers the next steps in kneeling position instruction that come after new shooters master kneeling position basics presented in "Learning the Kneeling Position on pages 25-26. Working to improve the kneeling position must recognize that kneeling is a complicated position. It is very difficult to balance the complete body-rifle system over its two primary balance points while simultaneously achieving a dynamic balance for the different support systems that include the left arm and sling, the torso and the left heel, kneeling roll and left leg that are the primary supports for the position. Effectively working out a stable kneeling position can be infinitely complicated, but when it is done right, kneeling can be nearly as stable as prone.

Kneeling Position Check Points

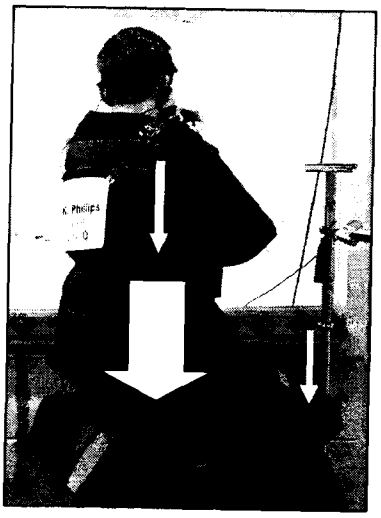
The first step in improving a position is to recheck the position to make sure its basic configuration is correct. The kneeling positions used by each shooter should correspond with the checkpoints illustrated and described on this page. If a shooter is not following each checkpoint, work to correct that part of the position before focusing on the improvement techniques described on the next page.

1. **Kneeling Roll**. Turn the roll so it points 30-60 degrees away from the line of fire. The size of the kneeling roll controls body height. Start with a roll filled about 2/3 full. Make a crease in the center of the roll to support the ankle.
2. **Right Foot and Leg**. Place the extended right toe behind the kneeling roll. Keep the right foot vertical. Rest the ankle on the kneeling roll and point the right knee the same direction that the kneeling roll points (30-60 degrees away from target).
3. **Body/Torso**. Sit on the right heel. Place the heel in the center of the buttocks. Rest almost all of the body weight on the heel. Roll the shoulders down; do not attempt to hold the body erect. Turn the body about 30 degrees from the target. The shooter should shoot "out of the position," not across the position.

4. **Left Leg**. Keep the left leg vertical or angled forward; do not angle the lower leg back to the rear. The left heel should be directly below the knee or slightly forward of the knee, but not to the rear of a point below the knee.
5. **Left Arm**. The correct left elbow location is different for different shooters; it may be behind the knee (above), forward of the knee (right, rare) or on the knee. Find a relaxed body position with the weight back on the heel and then drop the elbow to the knee or leg without reaching forward or pushing the torso back.
6. **Butt Location and Head Position**. Place the butt plate up in the shoulder so that the head is nearly erect, tipped only slightly towards the target. After the rifle butt is in position, draw the support hand back until the sights are raised to the level of the target.
7. **Sling Support**. Establish a vertical plane in the support arm and make sure the sling supports all the rifle weight.



Improving the Kneeling Position



1. Balance. To achieve a stable hold, the kneeling position must be precisely balanced. Kneeling has three possible support points, the right heel, the left heel and the right knee. To correctly balance the position, almost all body, rifle, left leg and left arm weight must balance above the right and left heels, and not on the right knee. In a correctly-balanced position, the only weight pressing down on the right knee should be some of the weight of the right leg. The illustrations to the left and right show how to balance the position. The arrows in the photos are sized to show the proportions of body-rifle system weight that rests on each support point. One of the keys to making sure the body-rifle system weight is balanced above the two heels is to pay close attention to the head position. The head must remain erect and can be tipped toward the target, but never to the right side. For some shooters, canting the rifle to the left may help achieve better balance (see photo on right).

2. Eliminate Body Tension. One of the most important ways to achieve a steady hold in kneeling is to eliminate as much body tension as possible. Muscle tension anywhere in the torso or upper body will cause the rifle to oscillate or swing back and forth. The first step in eliminating unneeded body tension is to roll the shoulders down while sitting on the kneeling roll. It requires muscle tension to sit up straight in an erect posture; it requires little or no tension to slump down. Let the muscles in the back go; drop the shoulders down. The second step in eliminating body tension is to pay careful attention to aligning the shoulders and hips. Imaginary lines drawn through the shoulders and hips should be parallel with each other. If the shoulders and hips are not aligned, the spine will be twisted and under tension. Eliminate this tension by aligning the shoulders and hips. The third step in eliminating body tension in kneeling involves correctly balancing the position (see #1 above). When the weight of the body-rifle system is precisely balanced over the right and left heels, significantly less muscle tension is needed to maintain the body posture than when the position is out of balance. The fourth step in eliminating body tension in kneeling is to find the specific location for placing the left elbow on the left knee or leg that removes as much tension as possible from the torso. Experiment by shifting the elbow slightly forward or rearward while noting changes in tension, especially in the lower back. Select a precise left elbow location that yields the least amount of tension in the back. When working to reduce and eliminate body tension in kneeling, it is essential that each of these steps be worked on separately. Best results are attained by following the order described here.

3. Adjust Position Height. The kneeling position is without question the most complex shooting position. It involves achieving a correct inter-relationship of differing torso-arm-leg lengths. The size of the kneeling roll is the basic method of varying position height. Kneeling rolls can be as large as 18 cm (7.2 in.) in diameter. Kneeling rolls can also be only partially filled so that when a crease is formed in the center of the kneeling roll, the right instep or ankle is only one or two centimeters above the floor. This and the type of footgear worn can vary the height of the body above the floor by six or seven inches. To begin, it is best to select a medium-sized kneeling roll where the instep is three or four inches above the floor. If the shooter has a torso that is long in proportion to the lengths of the arms and legs, take filling out of the kneeling roll to lower the body position. If the shooter has a relatively short torso and longer arms, a higher kneeling roll may be required. One way to evaluate this is to see how far back the left hand must be located on the fore end to raise the rifle to a level where the head position is acceptable. If the angle of the left forearm is too high, lower the kneeling roll to lower the body position. If left forearm is too flat, the kneeling roll may need to be increased in size to raise the body. When fine-tuning a kneeling position to eliminate body tension, small changes in kneeling roll height may help place the torso in just the right location to free it from tension.

4. Inner Position & Shot Technique. Another key to outstanding kneeling shooting requires paying close attention to how the position feels (the inner position) and to how the shot technique is executed. Good kneeling shooting requires that the shooter develop an acute sense of how the muscles in the torso and arms feel while preparing for and firing the shot. After placing the rifle in position, take a few seconds to mentally check whether the weight of the body-rifle system feels like it is precisely balanced above the two heels. If it does not feel balanced, shift the position slightly to balance it correctly. Take a few additional seconds to check how the muscles of the back and left arm feel. If the back muscles feel tense, make a conscious effort to let the muscle tension go. If the left arm muscles feel tense, make a conscious effort to let the arm relax so that the sling is the only thing holding up the rifle. Many shooters use their breathing technique to facilitate relaxation. They relax the back and arm muscles each time they exhale prior to starting the shot. Once the hold begins, it is critical to focus complete visual attention on the sight picture and to keeping hold movements precisely centered while adding pressure on the trigger to break the shot.

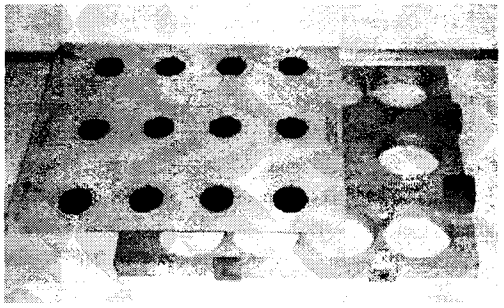
How to Score Targets

This section of the ***CMP Rifle Instruction Guide*** describes how to score targets when conducting a competition. New shooters also need to learn how to score their own targets so that they can measure their progress as shooters.

In any competition, the range and scoring officials have an obligation to participating teams and competitors to score all targets accurately and to quickly make their results available to them. The use of proper equipment and correct scoring techniques assures that the competition results will be accurate. New scoring officials should take as much time as they need to be sure their scoring is accurate. They will score much faster after they practice correct scoring techniques and gain more experience. Competition scoring officials should follow the procedures outlined below:

1. **Target Identification.** Be sure all targets are marked or numbered so that the relay, firing point, position and exact sequence of firing is identified on each target. Competitors' names may be placed on targets, but it is best if this is done in such a way that the scorers do not know whose targets they are scoring.

2. **Target Handling.** Targets should be issued on the range and not before a competition. Competitors and coaches may be given an opportunity to examine their targets after firing, but a range official should pick up the targets so that competitors and coaches do not touch or handle them after they have fired on them. The range official who picks up the targets should take them to the scorers without delay.



Target Holder for Scoring

3. **Target Holder/Scoring Box.** Targets must be held in the horizontal position to be scored correctly and accurately. Target holders that hold the target cards in a horizontal position and have 10 holes for the 10 individual record targets on a target card can easily be made. The use of a target-scoring box makes scoring much easier; keeping the targets horizontal while scoring makes scoring more accurate.

4. **Good Lighting.** One of the keys to accurate scoring is to score targets in an area that is well lighted. If the room used for scoring is not brightly illuminated, use desk or reading lights to place additional light on the targets.

5. **Scoring Gauges.** The only accurate way to determine whether a close shot touches or does not touch a higher value scoring ring is to use a scoring gauge or "plug." For air rifle scoring, there are "outward scoring" gauges, which must be used to score shots valued 3-10, and "inward scoring" gauges that must be used to score shots valued 1-2. Be absolutely sure the correct gauge is used in the correct way. Reading an outward scoring gauge on the inside could add several points to a shooter's score.

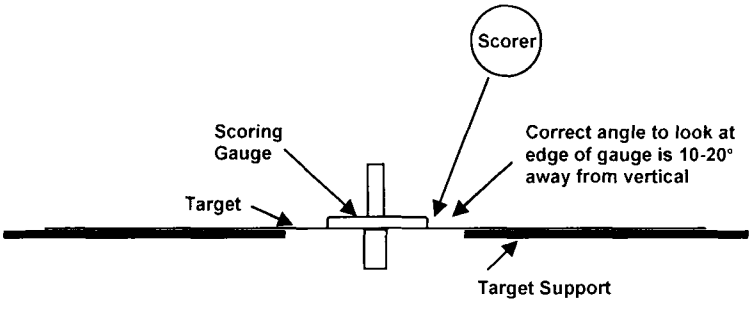
Using a Scoring Gauge.

To use a scoring gauge to score a doubtful shot hole, first be sure the target lies in a horizontal position, then follow these steps:

- Hold the scoring gauge loosely between the thumb and first finger and gently insert it in the shot hole. The scoring gauge must be allowed to orient itself to the center of the shot hole.
- Read the scoring gauge—determine if the shot is "in" or "out."
- Write the value of the shot and the initial "P" with a "+" or a "-" to show that the shot hole was plugged (P) and that it was given the higher value (+) or the lower value (-). A doubtful shot that was gauged to be a 9 would be marked "9/P+". Once a shot has been gauged and marked, it may not be rescored with a scoring gauge.

How to Read a Scoring Gauge. The correct method of reading a scoring gauge is to look at the lower edge of the scoring gauge at a slight angle from outside of the edge of the gauge. If you look at the gauge from directly above the gauge, you may see a shadow and not the exact bottom outside edge of the gauge.

CORRECT METHOD OF SCORING GAUGED SHOTS



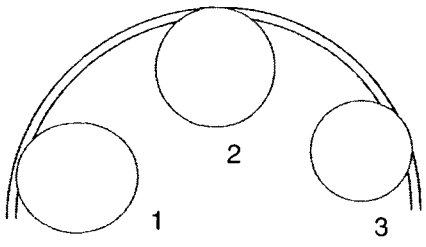
Magnifying Glass. A magnifying glass should be used to help you see the lower edge of the scoring gauge and the edge of the scoring ring as accurately as possible. Any time you look at a gauge in a close shot and there is any doubt as to whether the gauge is in or out, use a magnifying glass before you make your call. In addition, be sure the shot hole being checked is well lighted. An "Eagle Eye" scoring device with a magnifying lens built in can be used both as a magnifying glass and to score torn shot holes.

How to Score Targets

Scoring with Outward Scoring Gauges.

An outward scoring gauge is a gauge that is read on its outside edge. If an outward gauge is inserted in the shot hole, you must look at the outside edge of the gauge, that is, the edge that is away from the ten ring. If the doubtful shot could be a ten or a nine, you must look at the outside edge of the gauge to determine whether it lies inside or outside of the outside edge of the eight ring. The diagram shows how to read an outward scoring gauge.

1. If you can see white between the outside edge of the scoring gauge and the outside edge of the outer white scoring ring, the shot is "in" and receives the higher value.

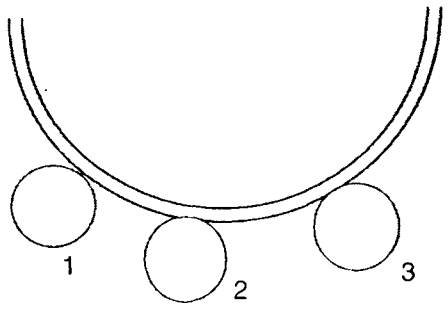


2. Even if you cannot see white, but can see that the outside edge of the gauge just "touches" or is tangent to the outside edge of the scoring ring, the shot is "in" and receives the higher value.
3. If any part of the outside edge of the scoring gauge lies outside of the outside edge of the scoring ring, the shot is "out" and receives the lower value.

Scoring with Inward Scoring Gauges.

An inward scoring gauge is a gauge that is read on its inside edge. The inward gauge must only be used to score certain shot values (outdoor targets, 1-2 rings for air rifle, 1-3 rings for 50 feet). If an inward gauge is inserted into a shot hole, you must look at the inside edge of the gauge, which is the edge closest to the target center. The diagram shows what to look for.

1. If you can see even a faint white gap between the edge of the scoring gauge and the outside edge of the white scoring ring, the shot is "out" and receives the lower value.



2. If the edge of the gauge breaks into the scoring ring, the shot is "in" and receives the higher value.
3. If you cannot see a gap and the gauge is tangent to or touches the outside edge of the scoring ring, the shot is "in" and receives the higher value.

Scoring Targets with 10 Regular Shots.

When a target is scored, the first thing scorers should determine is whether the target has 10 regular shots, that is, 10 record shots in 10 record bullseyes and that all sighters are within the "guard ring" around the two sighting bullseyes. If the target has 10 regular record shots, proceed to score the target.

Score in pairs. The proper way to score targets is for two persons to score while working together. One person should call out the value of the shots, while the second person writes them on the target. When there is a close shot, one person should insert the gauge. After both persons have a chance to look at it, both scorers should simultaneously give a visual signal as to whether the shot is in or out. For example, they can count "one, two, three" and on the count of three give a thumbs-up for shots that are in and thumbs-down for shots that are out. If they disagree, a scoring supervisor or third person should break ties.

Torn shot holes. If a shot hole is torn so that a scoring gauge will not accurately find the center of the true shot hole, use an overlay or Eagle Eye scoring aid to determine the location and value of the shot. Do not score torn shot holes with gauges!

Use the target as the scorecard. When 10-bull targets are used, the target card should also serve as the scorecard and all scores and scoring information should be written on the target card.

Mark all gauged shots. Whenever a shot is gauged, the score that is decided must be written beside that bullseye, together with the letter "P" to indicate the shot was gauged or plugged and a "+" or "–" sign to indicate that it was gauged in (+) or out (-).

Totals. As soon as all ten shots on one target card are scored, one of the scorers or another person should total the values of the shots and write the total on the target card.

Scoring Targets with Irregular Shots.

If the target does not have 10 regular shots, follow these steps to determine the score (procedures here are for 10m air rifle targets; consult a rulebook for procedures to score other irregular targets).

Determine the number of record shots. Count the number of shots that are in the record bulls or in the white area of the target outside of the sighter ring. Any sighters that were misses should not be counted if they were marked or verified by the Range Officer. Shots fired before the command **START** or after the command STOP must be marked or verified by the Range Officer, must be counted as record shots and must be scored as misses.

10 or fewer record shots. If there are 10 or fewer record shots, assign each shot to a bullseye and score the shots on the target. Score each shot that is not fired or not on the target as a miss (0).

10 or fewer record shots with more than one shot in a bullseye. If there are 10 or fewer total record shots on a target and there are bullseyes with more than one shot (the same number of bullseyes must have no shots), score the target. There is no penalty for the first two times a competitor fires extra shots in one bullseye and leaves another bullseye unfired. For the third and all subsequent times in a complete three-position course of fire that a competitor fires an extra shot in a bullseye while leaving another bullseye unfired, apply a 2-point penalty to the score for that target.

11 or more record shots on a target. Assign all shots fired to a bullseye. If there are one or more bullseyes with 2 or more shots, nullify the highest value shot(s) on those bullseye(s) and score the remaining 10 shots. If it is impossible to assign all of the record shots to individual bullseyes, nullify the highest value extra record shots and score the 10 lowest value record shots. For each extra shot that was fired, deduct 2 points from the lowest value shot(s) on the target card or in the first series (target card).

Crossfire. All crossfire shots should be marked or verified by the range officer. A verified crossfire from another competitor must be disregarded when scoring the target that the crossfire shot hit. The crossfire shot must be scored as a record shot and as a miss for the competitor who fired the crossfire.

Penalties. Any penalties assigned by the Range Officer or Jury for rule violations must be written on the target or documented so that the penalties can be applied to the competitor's score in accordance with the rules.

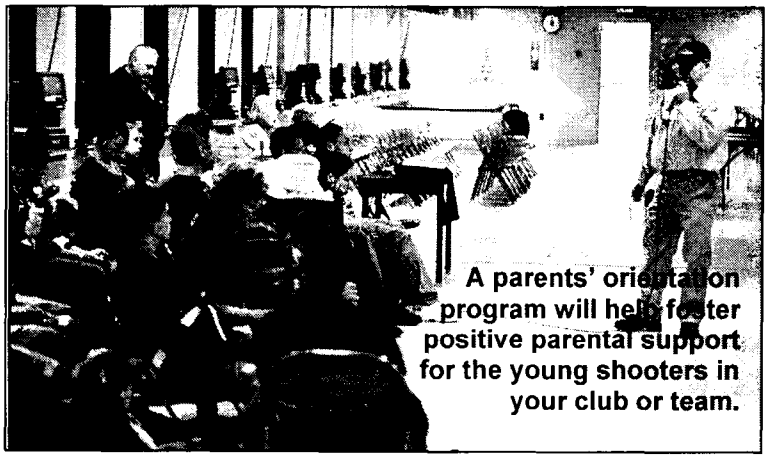
A Brief Guide for Parents

This section of the ***CMP Rifle Instruction Guide*** addresses parents, one of the critical components in the success of most junior shooters. The support and encouragement parents and other interested adults provide for young and new shooters can make a huge difference in how they progress in the shooting sports. While this section is written specifically for parents of young shooters and for other adult leaders, many of the components of a positive shooting sports environment that parents can provide also are applicable to the environments that shooting clubs and teams can provide for new shooters who participate in their programs.

For Coaches and Instructors:

Positive parental support is a critical success factor that can further or hinder how much a young person progresses in the sport of shooting. There are several things coaches and instructors can do to foster the right kind of parental involvement in their shooting programs:

1. **Allow and encourage parents and other interested adults to attend all appropriate club and team activities.**
2. **Conduct a parents' orientation program at the beginning of each basic marksmanship class or at the beginning of each program year.**
3. **Identify specific roles that parents and other interested adults can play in your program (i. e. assistant range officer, assistant coach, fund raising, equipment acquisition and preparation, trip planning, etc.). Form a booster club that formalizes the support roles needed by your team or club.**
4. **Help parents learn more about shooting sports; encourage them to attend coach training and travel to matches with the team; show them how they can facilitate home training by advanced juniors and other new shooters.**



A parents' orientation program will help foster positive parental support for the young shooters in your club or team.

Should a Parent be Their Child's Coach?

The answer to this question can be yes or no. Some fathers and mothers coach their children and do an outstanding job. Other parents simply do not want to be their child's youth sports coach or they want the coach to be someone with expertise in that sport. Parents who want to coach their own son or daughter must ask whether both the parent and child will be comfortable in roles that involve teaching and learning technical skills, making and accepting critical evaluations, accepting and objectively analyzing good and bad results and giving both praise and encouragement that is not clouded by emotion. In some cases there is no one else available to be the shooting coach. If that is the case, parents should not avoid the responsibility of becoming their child's coach, but they also must accept the concurrent responsibility of learning as much as they can about how to teach shooting skills.

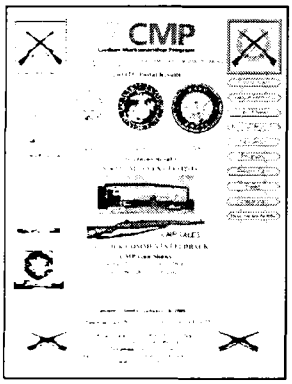
Guidelines for Positive Parental Roles

Parents or guardians of youth who participate in organized target shooting programs are urged to give careful consideration to these guidelines

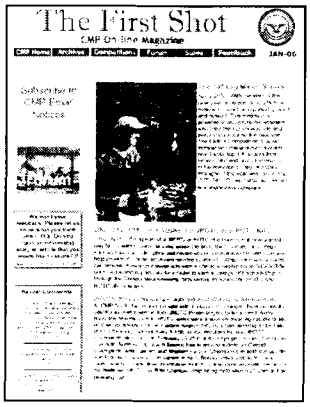
1. Always remember that youth sports like shooting are not just about winning; help to keep your child's focus on learning both shooting skills and life skills, on having fun and on sportsmanship and fair play.
2. Insist that your children receive gun safety training even if they do not remain active in target shooting.
3. Enroll your son or daughter in a shooting program when they are ready, not before. It's OK to provide information about the sport, but let them tell you when they are ready. Some children have the right combination of interest, motor skill development and maturity at age 10 or 12; others are not ready until age 15 or 16. There is no ideal age to start shooting.
4. Respect your child's goals in shooting. It's OK to challenge him/her to set high goals, but make sure their goals are really their goals, not yours.
5. You cannot buy success for your children. It's OK to make sure they have good equipment, but be sure they understand that the finest rifle and equipment is never a substitute for practice and hard work.
6. Encourage your son or daughter to practice hard and strive to improve, but make sure they are having fun with their practices. Do all you can to make practice opportunities available, but do not force them to practice when they are not motivated to practice.
7. Encourage your son or daughter to respect their coaches. If you disagree with the coach, work that out with the coach, never disagree through your child.
8. Take your son or daughter to competitions or do what you can to help the club or team get to competitions.
9. Encourage goal setting. It's OK to ask "what do you plan to work on at practice tonight?"
10. Praise accomplishments. Find out how your child did in practice and matches; praise them when a goal for the day was reached or a good score achieved.
11. Respond positively to bad shots and bad scores. Bad scores happen to all shooters; your child did not shoot the bad score to make you angry. When a bad score happens, make sure your child knows you love them just as much as when they shoot great scores.
12. Insist that your child display self-discipline and self-control while shooting; the coach will not tolerate a lack of discipline or self control or displays of anger; you should not tolerate that either.
13. Encourage your child to rejoice in the successes of others on the team. Becoming a real team player encourages others on the team to do the same.
14. Communicate with the coach, especially when you have questions or concerns. Find out if there are lessons the coach is trying to teach your child that you can help to reinforce.

CMP Communications

The success of any shooting program depends upon how well information it needs is communicated to program leaders and participants. The CMP pursues an active communications program that includes a printed newsletter, its web site, on-line magazine, email notices and printed program literature that can help shooting coaches and shooters stay informed..



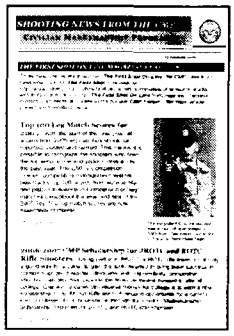
CMP WEB SITE - http://www.odcmp.com The CMP maintains a large, detailed web site as a primary means of communicating with constituents. This web site includes detailed information on CMP Competitions, CMP Programs and CMP Sales.



THE FIRST SHOT - http://www.odcmp.org The CMP's on-line electronic magazine is posted on the CMP web site. Each edition features reports on new CMP program developments, the latest news in the shooting sports field and special interest features about people who have done interesting things through their shooting activities. The First Shot now receives 2,000,000 hits per month from constituents who read its articles or use its forum.

CMP FORUM - http://www.odcmp.org/new_forum The CMP Forum provides nine categories which include Sales, Communications, Share your CMP Experience. Ask Each Other, Competitions, Affiliations, Camp Riflery, Junior Training and Competition and Ask Orest. The Forum is a great way to communicate with the CMP Staff and other forum members, ask for advice or simply ask questions about any of the topics listed. Currently, there are over 9,500 topics with over 4,600 Forum members.

ON THE MARK The CMP annually publishes five issues of ON THE MARK to inform junior shooting sports leaders and coaches about programs and special events for juniors and provide instructional information to help them teach marksmanship and safety more effectively. The CMP now distributes ON THE MARK to over 6,000 Army, Navy and Marine JROTC units, CMP affiliates' junior leaders and other persons involved in conducting youth shooting sports activities. If you are interested in receiving this newsletter, please visit the CMP web site at http://www.odcmp.com/Programs/OTMOrderForm.pdf or email Onthemark@odcmp.com for more information.



CMP SHOOTER'S NEWS The CMP sends out email updates, CMP SHOOTER"S NEWS, to its email list to announce new articles that are posted on its electronic magazine, THE FIRST SHOT. The updates also include the latest information in the shooting sports and CMP competitions and programs. To subscribe to CMP SHOOTER'S NEWS, click on the CMP web site at http://clubs.odcmp.com/subscribe.

CMP COMPETITION TRACKER - http://clubs.odcmp.com The CMP Competition Tracker web site is a great way to find matches, CMP affiliated clubs or lists of current Distinguished shooters. Complete results from all competitions conducted by the CMP are posted on the Competition Tracker web site immediately after they are fired.

CMP Sales Programs

CMP Junior Rifle Sales Program. The CMP uses its volume purchasing ability to make rifles available for sale to affiliated clubs, teams and camps at special prices. Rifles currently available through this program include the Walther LG300 Jr precision air rifle, the Daisy M853 and M888 sporter air rifles, the Anschütz Model 8002 CA club air rifle and the Anschütz Model 1903 Junior or Standard Target Smallbore Rifle. For more information and ordering information, visit the CMP web site at http://www.odcmp.com/Programs/JrAirRifles.htm or email clubrifle@odcmp.com.

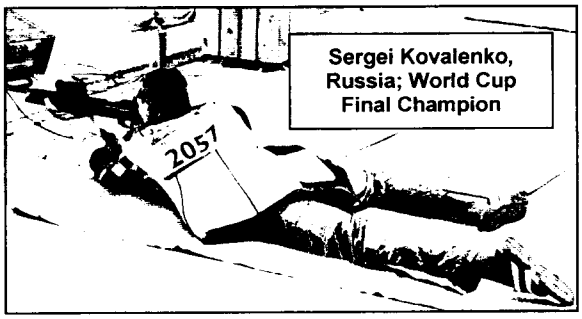
Target Sales Program. The CMP target sales program offers affiliated organizations and individual shooters an opportunity to purchase, at special prices, targets that are especially designed for use in youth and adult marksmanship instruction or in competitions. Targets available include the BMC and NC-AR10 targets for 10 meter air rifle shooting. For more information and ordering information, visit the CMP web site at http://www.odcmp.com/Programs/targets.htm or email clubrifle@odcmp.com.

Glenn Dubis, USA; World Champion, World Record Holder

Sergei Martynov, Belarus; Olympic Medalist

Rifle Positions of the Champions

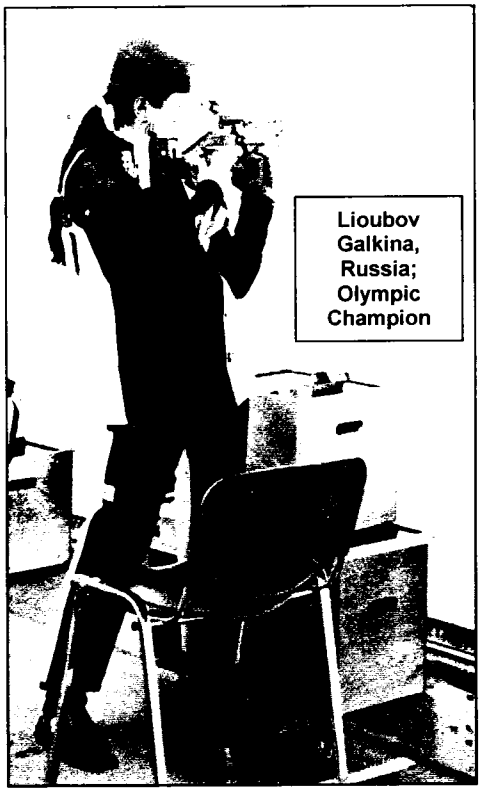
One of the best ways to develop good rifle shooting positions is to start by studying the positions used by champion shooters. The photos on this page show prone, standing and kneeling positions that are used by some of the greatest shooters in the world. New shooters should study these and the other photos of champion shooters that are printed in this guide when they develop or improve their own rifle shooting positions.



Sergei Kovalenko, Russia; World Cup Final Champion

Raimond Debevec, Slovenia; Olympic Champion, World Record Holder

Jason Parker, USA; World Champion, World Record Holder



Lioubov Galkina, Russia; Olympic Champion

Li Jie, China; Olympic Medalist