

Tuggerah Lakes Memorial Pistol Club



New Members Information Booklet

*Tuggerah Lakes Memorial Pistol Club would like
to thank the many contributors of material that
made this handbook a reality.*

September, 2005

Notes

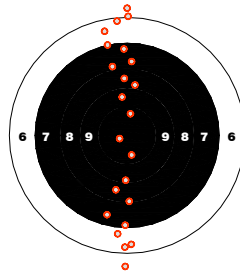
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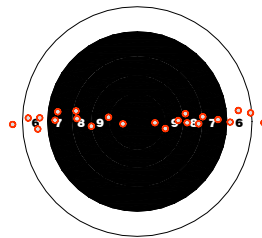
Notes

NARROW / VERTICAL

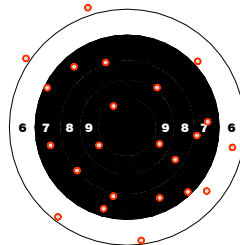
- Did you relate the front sight entirely to the rear sight rather than the target?
- Was the front sight level in the rear sight notch?
- Did you refrain from breathing during the shot release?
- Are you doing sufficient holding exercises to develop stamina and endurance in the muscles?

**NARROW / HORIZONTAL**

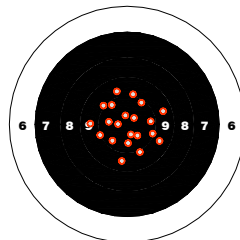
- Was your stance in natural alignment to the target?
- Does your grip ensure natural alignment of the sights?
- Is there sufficient front to the rear pressure on the grip?

**AT RANDOM ON THE TARGET**

Greater attention to all basics is needed, in particular sighting, trigger control and follow through.

**CENTRE GROUP**

Congratulations! This is the end result of applying all the basic fundamentals correctly.



TUGGERAH LAKES MEMORIAL PISTOL CLUB

This is to certify that

.....
who joined the club on Saturday

.....
Is eligible to commence the NEW MEMBER PROGRAMME.

Treasurers Signature

Only the Captain, Vice Captain or the Duty Officer may sign this form.

Date	Event	Duty Officer Name	Duty Officer Signature
	Shooting Coaching No.1		
	Shooting Coaching No.2		
	Shooting Coaching No.3		
	Shooting Coaching No.4		
	Supervised Match		

The above named probationary member has completed the NEW MEMBERS PROGRAMME to my satisfaction

..... *Captain / Vice Captain / Duty Officer*
(Signed) (Cross out whichever is not applicable)

The PAB26 Form, which is required for the purchase of a pistol, cannot be issued until all of the above requirements have been completed and signed off.

INTRODUCTION

On arrival, the attendance book(s) must be personally signed by members and visitors and all licence details, as recorded, must be verified and signed off by a club official

Every person entering the range, member or visitor places himself/herself under the control of the Range Officer (Rule 1 NSWPA Inc)

Members must adhere to the Dress Rules as laid down by the Club i.e. the wearing of enclosed footwear etc.

No intoxicating liquor is to be taken into any shooting range (Section 19 Standard Rules for Safety and conduct on a Pistol Range) and No smoking is permitted on the ranges at any times.

No one may shoot, handle firearms or enter a range after consuming intoxicating liquor.

Juniors reaching the age of (12) twelve years are eligible to apply for junior membership, and as such may compete in most matches. Juniors under the age of sixteen (16) years may not shoot Centre Fire pistols.

Hearing and Eye protection – it is a requirement of the Club that hearing and eye protection be worn at all times when on the firing line, and in areas immediately behind.

Club pistols may be obtained from the Secretary or Club Captain. They must be signed out by the member and signed in by the Duty Officer, Secretary or Captain upon return. *N.B. Centre Fire pistols MAY NOT be taken out until new shooters have completed their instructional course.*

The probation period for new members is from one to three months from the date of joining. After this period a PAB 26 may be provided by the Secretary to allow the issue of a probationary pistol licence by NSW Police FAR providing the following conditions have been met.

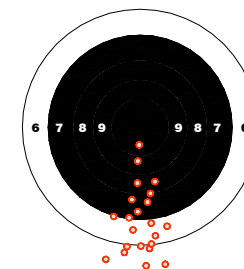
New members must attend a "Safety Instructional Course" commencing on the first Thursday after being accepted as a member and continuing for a period of four weeks. The new member may then participate in a match with the Safety Officer or Sponsor standing behind until such time as they finish the probation period and are considered safe.

New members during their probation may only shoot on Saturdays at the live range or Thursday nights at the air pistol range.

All members must notify the Secretary WITHIN SEVEN DAYS of any change of address or any circumstances which could result in the refusal or cancellation of their Pistol licence.

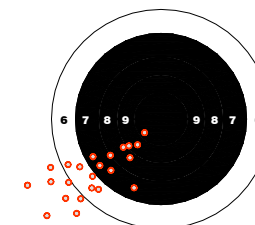
LOW / VERY LOW

- Was your trigger finger placed on the centre of the trigger?
- Was your little finger applying too much pressure?
- Did the front sight stay level with the shoulders of the rear sight?
- Did your trigger press continue until after the shot break?



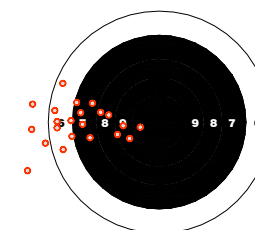
LOW / LEFT

- Did your grip remain even and firm during firing?
- Was your trigger finger clear of the pistol frame/wood?
- Did your finger placement on the trigger allow for a direct rearward press?
- Was your trigger follow through smooth?



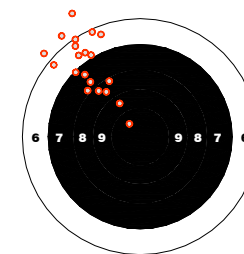
LEFT / FAR LEFT

- Was there an equal amount of light on either side of the front sight?
- Did perfectly aligned sights drift to the left during hold? Why?
- Was there a gap between your trigger finger and the pistol frame/wood?
- Did you avoid all pressure on the tips of your fingers?



HIGH / LEFT

- Were your elbow and wrist locked during firing?
- Did you have a smooth, directly to the rear pressure on the trigger without side pressure?
- Did you complete the shot smoothly with full awareness of sights and trigger?



Group Evaluation Diagrams

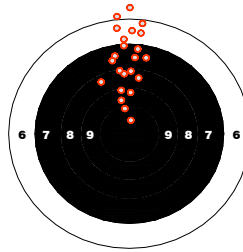
Fire a number of shots without observation, maintaining the same aiming area and grip on the firearm.

If all hits are grouped closely, but not in the centre of the target and you are quite sure you are applying all the fundamentals of a technically correct shot, you should adjust your sights.

The groups below are offered purely as a guide to analysis.

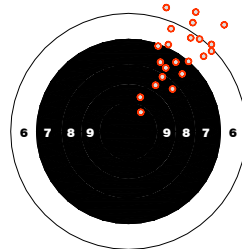
HIGH / VERY HIGH

- Was the front sight level with the rear sight, or high?
- Was your wrist locked?
- If the sights were correctly aligned, did you drift high in your aiming area? Why?
- Did you relate the centre of the front sight to the target rather than to the rear sight?



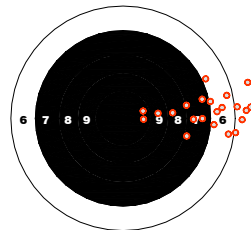
HIGH / RIGHT

- Did your wrist stay locked during the trigger press?
- Was your trigger press smooth and continuous?
- Did your grip remain constant?
- Did you follow through on the trigger press?



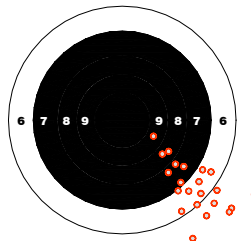
RIGHT / FAR RIGHT

- Was the front sight aligned in the rear sight, with an equal amount of light on either side?
- Did perfectly aligned sights drift to the right during hold? Why?
- Was your thumb laying relaxed alongside the pistol?
- Is your stance in natural alignment to the target?



LOW / RIGHT

- Was your wrist locked throughout the shot release?
- Were you smoothly pressing the trigger rearward before, through and after shot release?



Types of Handguns and Ammunition

There are three main types of handguns.

Revolvers

(mainly 6 rounds
using centre or rimfire ammunition)



Self-Loading Pistol

(various magazine capacities
using centre or rimfire ammunition)



Rimfire

The primer mix is distributed around the rim of the cartridge.
eg the .22LR or .22 short



Gas Actuated ('Air') Pistols

(mainly single shot in .177 calibre)



('Air') Pistol Pellets

These are a cast or pressed lead mix with no primer or propellant
eg the .177 or .22



SAFETY

Always think SAFETY and COURTESY on the range.

1. **Pistols always UNLOADED, locked and boxed.**
2. **Pistols ONLY to be REMOVED from the BOX on the firing line AFTER the range officer has called PREPARATION TIME.**
3. Then magazine to be removed and the slide locked open or cylinder open.
4. **Pistol to be POINTING DOWN RANGE at all times.**
5. Always know where the pistol is pointing.
6. No magazine or cylinder is to be loaded till you receive the command **LOAD** from the range officer.
7. No pistol to be removed from the firing line until **CLEARED** by the range officer.
8. **THE RANGE OFFICER MUST BE OBEYED AT ALL TIMES.**
9. Unload the pistol and check that it is unloaded before you put the pistol down.
10. **No loaded pistol to be placed in the rest or on the bench.**



Pistols don't cause accidents it's the people who do not practice safety.

INTOXICATING LIQUOR

No liquor will be permitted at the Firing Points or bays at any time.

Shooters, Range Officers, Scorers, and any other Club Official on duty may consume liquor in the Club rooms only after they have finished shooting, or officiating for the day and after they have deposited their pistols and ammunition in their cars.

No shooter, having consumed liquor, will return to the Firing Line.

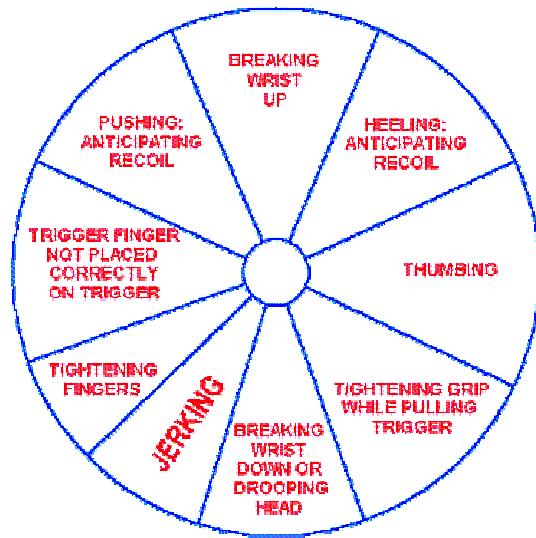
No person shall be admitted to a Range of the Club whilst apparently under the influence of intoxicating liquor. Visitors, whether from another Pistol Club or not, must comply with these conditions. Any person found apparently under the influence of intoxicating liquor shall be removed forthwith.

Any member violating these conditions shall be liable to expulsion or, if a visitor from any other Pistol Club, shall be reported in writing to the Committee of their Pistol Club.

3. **Improper Grip or Position.** Suffice to say that you cannot fire a decent score with any gun at any range if you continually change your grip or position.
4. **Jerk or Heel.** The application of pressure either with the trigger finger alone or in case of the heel, pushing with the heel of the hand at the same time. Apply pressure to the trigger straight to the rear and wait for the shot to break.
5. **Anticipation.** Anticipation can cause muscular reflexes of an instant nature that so closely coincide with recoil that extreme difficulty is experienced in making an accurate call. Anticipation also leads to flinching.
6. **Loss of Concentration.** If the shooter fails in his determination to apply positive pressure on the trigger while concentrating on the front sight his prior determination needs renewal and he should rest and start over.
7. **Anxiety.** You work and work on a shot, meanwhile building up in your mind doubt about the shot being good. Finally you shoot just to get rid of that particular round so you may work on the others.
8. **Vacillation (Plain Laziness).** This is a mental fault more than a physical one, which results in your accepting minor imperfections in your performance which you could correct if you worked a little harder. The end result being you hope you get a good shot. Just like you hope you will get a gratis tax refund, and you will get one just about as frequently as you get the other.
9. **Lack of Follow Through.** Follow through is the subconscious attempt to keep everything just as it was at the time the shot broke. In other words you are continuing to fire the shot even after it is gone. Follow through is not to be confused with recovery. Merely recovering and holding on the target after the shot is no indication that you are following through.
10. **Lack of Rhythm.** Hesitancy on the first shot or any subsequent shot in timed or rapid fire. Develop a good rhythm and then have the fortitude to employ it every case. Frequently many shooters will have fine rhythm until the last shot of a string and then hesitate, doctoring up that last shot.
11. **Match Pressure.** If there are 200 competitors in a match, rest assured that there are 200 shooters suffering from match pressure. So what makes you think you are so different? If you are exerting all your mental energy toward executing the correct fundamentals rather than the arithmetic evaluation, your shooting match pressure will be what you feel when people congratulate you on a fine performance.

The Wheel of Misfortune

Every day of the shooter's life brings a new lesson. Identifying errors are crucial in order that these lessons be learned. The following chart can help pinpoint such basic flaws in a shooter's technique by analyzing group locations. As printed, it is for a right-handed shooter. (A left-hander's chart would be mirrored horizontally.)



Top Eleven Bad Habits of Shooters

1. **Not Looking at the Sights.** This quite frequently is listed as "looking at the target." A shooter may be focusing his eye on neither the sights nor the target, but since he does not see the target in clear focus he assumes he is looking at the sights. You must concentrate on sight alignment.



2. **Holding Too Long.** Any adverse conditions that interrupt a shooter's ability to "hold" will cause him to delay his squeeze, waiting for conditions to better. The disturbing factor about this is that you will do it unconsciously; therefore, you must continuously ask yourself, am I being too particular?

STANDARD RULES FOR SAFETY & CONDUCT

1. Immediately on entering the Range. Every member shall sign the Attendance Book and have their licence details verified by a club official. Every visitor, whether competitor or spectator, shall sign his/her name and address, or, if a member of another Pistol Club the name of the Club in the Visitors Book. If shooting licence details must be verified.
2. Every person entering the Range, whether member or visitor, places him / herself under the control of the Range Officer and his/her assistants, and must at all times comply with their lawful directions and instructions, and these Rules for Safety and Conduct.
3. **Refusal to Obey** – No person shall refuse to obey the instructions of the Range Officer or any other Official in the proper conduct of the affairs of his/her office.
4. **No person shall enter or leave the range with a loaded pistol.**
5. **Loaded Pistols** - No firearm or magazine will be loaded until the Competitor is in his/her place at the Firing Point and the command "LOAD" been given by the Range Officer. At all times while loading, the pistol shall point in the direction of the Target.
6. **Unloaded Pistols** - When not at the Firing Point, firearms will be unloaded at all times; Cylinders will be open or slides back and magazines out, unless it is cased.
7. **Removal of Pistols** - No firearm may be removed from the Firing Point until it and the cylinder(s)/magazines have been checked and cleared by the range officer.
8. No person shall touch the Pistol or equipment of another person without the owner's permission, for club pistols permission is to be obtained from the Secretary/Club Captain, or Duty Officer.
9. **Firing Point Commands**

LOAD means to load and insert the loaded magazine or load and close the cylinder.

ATTENTION is a command instructing the shooter that the series has begun.

START means to start firing without delay. The timing of the series commences with this command. Start may be signaled verbally, by a short whistle blast or by some other device.

STOP means **STOP FIRING IMMEDIATELY** and to unload and open the action of the pistol. Failure to immediately obey the command STOP is one of the worst infractions of Range discipline. It could result in the wounding or death of a person who has wandered into the line of fire. On this command cylinders will be opened, magazines will be removed and slides locked back and all pistols will be placed on the shooting bench until the next command by the Range Officer. Stop may be signaled verbally, by a long whistle blast or by some other signaling device.

UNLOAD is the command for all shooters to place their pistol on the bench with the action or cylinder opened, magazine removed and chamber empty, then to stand back from the firing line.

10. **No person on the Firing Line shall touch a pistol or equipment whilst any other person is forward of the Firing Line.**
11. **Discipline.** The Safety of Competitors, Range personnel and spectators requires continual attention by everyone involved to the careful handling of firearms and caution in moving about the Range. Self-discipline is necessary on the part of all Competitors, Range personnel and spectators. Where such self-control is lacking it is the duty of Range personnel to enforce it, and the duty of Competitors to assist in such enforcement.
12. **Spotting Scopes.** The use of a telescope by the competitor is permitted in most events for the spotting of shots. No part of the telescope or stand may touch any part of the shooter's clothing or person.
13. **Shooting kits.** Shooting kits may be taken to the Firing Range when they are of such size and construction that they will not interfere with shooters in adjacent bays.
14. **Firing positions.** Competitors shall take their positions as indicated by the Range Officer. No portion of the shooter's body may rest upon the bench or touch the ground in advance of the firing line.
15. **Interference.** The firing points will be kept clear at all times except of competitors actually firing and such Range personnel as may be necessary. Any person, competitor or otherwise, who interferes with or annoys any competitor in any way will be warned to desist and upon failure to comply will be ordered off the pistol range.
16. **Policing the Range.** It is the duty of competitors to clean up their firing points at the completion of the match. The range officer will supervise this.
17. **Competitors match duties.** Competitors will act as scorers and patchers when requested to do so by the range officer.
18. **Officials.** The firing line is under the control of the range officer and such assistant range officers as may be required. The range officer is responsible for the safety and discipline of the range personnel, competitors and spectators. It is his / her duty to be completely familiar with the programme and club, PA and ISSF Rules. He / she will comply to the best of his / her ability with all instructions issued by the Captain and will render every co-operation to other officials. He / she must be constantly alert, impartial in his / her handling of competitors and courteous but firm.

Follow Through

Without it you might as well not pick up the pistol to shoot, it is the critical conclusion to any shooting technique. Rapid Fire shooters follow through, they just do it faster. You must do it with every event you shoot because if you don't you'll find that your concentration will lapse before the shot has broken, you'll relax your arm as the shot breaks, (eventually just before) your eyes will move onto the target to see the outcome, whereas if you were following through you could tell by the sight alignment as the shot broke just where it would land on the target, if you can 'call the shot' you can call yourself a shooter. The only way to do this is to "DO AFTER THE SHOT BREAKS WHAT YOU WERE DOING BEFORE". Keep the pressure on the trigger, try to keep the sights where they were before recoil, stay there, maintaining arm tension, grip tension, eyes on the sights. Even in 10 seconds standard pistol it is a "squeeze recover the sight picture, maintain the line" while squeezing for the next shot. Always maintain the straight arm tension until the pistol is lowered to the bench. If the arm is relaxed or a technique is used where the pistol is brought back by bending the elbow after the shot breaks, sometimes arm tension is relaxed too soon resulting in stray high shots from the slightly bent elbow. If you bend the elbow, particularly in free and air reloading, prolong the follow through or the straight out hold on the target.

If you find it difficult to hold your head in a constant position, purchase shooting glasses and position the lens so that you can only see with your head in the correct position, an iris aperture may also help. Or buy some transparent eyelets, used to stop punched paper from tearing and place in position on your glasses, or magic tape. You should practice keeping your head in the one position while raising and lowering the pistol.

Most shooters aim with their 'in line' eye, ie right arm right eye, but a notable exception is Roberto di Donna, Olympic / World Air Champion is right arm left eye.

It really doesn't matter provided the neck is turned further to allow aiming with the 'off' eye, that the veins and arteries in the neck are not twisted or compressed (which can happen to someone who tucks their head in or has a short neck) restricting blood supply to the head which will affect balance and vision. It is also more natural to line everything up on the one side.

Therefore 'in line' if possible to do what is natural for our brain to manage.

It is better to shoot with both eyes open but if you can see a double image use a translucent occluder over the non aiming eye, it will allow even light to reach both eyes. Eye muscles are sympathetic, if you close one eye the pupil of the open eye will want to expand to match the other eye that has been darkened. It creates strain and tension. Keeping one eye closed usually results in the screwing up of the facial muscles, which in a very short time will give the shooter a headache.

A piece of translucent plastic, from a milk container etc, can be cut and placed under a cap brim or a headband and will have the same effect as a expensive occluder.

In the final stages of the aim / triggering, the shooter sometimes does not detect their own body sway, moving them away from the aiming point, so it is most important that a stable shooting position is maintained. An aid to this is proper shoes, clothing, ear protection, etc.

Cushioned soled, air filled etc shoes flex far too much so buy a good pair of solid soled lace up shoes.

Shoes may not cover the ankle regardless of whether they provide support or not. (ISSF Rule)

AIMING – INTERNATIONAL RAPID FIRE TARGETS

The area aiming principle is still the same, there is no specific point chosen on the target, because it is all black it is more natural, to raise the arm and pistol to a more central position while firing the shot, the sights are adjusted to allow the group to be positioned in the area we require e.g. the centre. The centre scoring area is much larger than a precision target therefore aim is not so critical, it is the smooth positive triggering and arm raise control and ability to stay with the pistol and follow through with the total sequence which provides the consistency shot to shot. To achieve this we must be easily able to align the sights (this is where a properly fitted grip is critical) and make sure that the gaps are equal and the top of the sights are level. It is much easier to do this quickly if the sights we are looking at aren't too narrow, there needs to be a nice wide foresight with enough light gaps either side to easily align against a target which has far less contrast than the aiming area on a precision target.

Safety Off The Range

Always carry pistols either cased, trigger locked in an obvious manner or open so that everyone can see that they are open. With Self-loading pistols, lock the slide back and remove the magazine. If a slide lock is not fitted, use a piece of plastic, wood or a small screwdriver to lock the slide open. Under no circumstances should a cartridge case be used.

All pistols, when not cased, should be carried by the barrel with the butt forward and with revolvers, swing out the cylinder to that everyone can see that the pistol is in a safe condition. When off the range, the pistol should be carried in a locked pistol bag or pistol box.

Until the pistol is put away KEEP IT OPEN.

The first thing you do when picking up a pistol or handing a pistol to someone else, is POINT it in a SAFE direction and CHECK that it is EMPTY. ALWAYS HAND AN OPEN PISTOL TO SOMEONE SO THAT IT IS OBVIOUS IT IS SAFE.

NEVER handle a pistol without the permission of the owner. If you can't find the owner, don't touch the pistol.

NEVER try the trigger without the permission of the owner. You may break the firing pin or damage the face of the chamber.

NEVER put your finger on the trigger unless under the control of a Range Officer or in a declared safe area.

When firing an unloaded pistol (DRY FIRING) point the pistol in a safe direction. Many a person has been killed or injured when an unloaded pistol has gone off. Dry firing should only be done in a safe area.

NEVER load a magazine or cylinder except when on the firing line under the control of a Range Officer.

NEVER POINT A PISTOL AT ANYONE, LOADED OR NOT!

Safety On The Firing Line

DO NOT handle pistols or enter shooting bays at any time whilst people are forward of the firing line. Under no circumstances shall a pistol be put on the bench while people are forward or before the call of "Preparation Time" by the Range Officer. If shooters are undertaking "practice" instead of a specific match it is courteous to ask the Range Officer's permission to place a pistol on the bench.

NEVER load a pistol or magazine until the Range Officer gives the command....'LOAD'.

NO SHOT may be fired before the Range Officers gives the command 'ATTENTION/START (FIRE)'.

When you have the pistol in your hand, but not actually firing a shot, keep the pistol pointed "down range" at all times. Take care not to aim the pistol at the concrete paths on either the 25 or 50 metre ranges.

If you have to put the pistol on the bench or leave the firing line for any reason, UNLOAD before putting the pistol on the bench. Ask the Range Officer for permission to leave the range and request permission to leave the pistol on the bench under his/her control.

After firing a series, check that the chamber is empty, remove the magazine / open the cylinder and leave the pistol open, put it down so that the Range Officer can check that it is "Clear" and stand back from the bench.

NEVER remove a pistol or magazines from the firing lines without first having them cleared by the Range Officer.

NO shots may be fired without the permission of the Range Officer.

Muscles maintain load longer if they are elongated first, so the first arm raise is by way of a mild stretch and tension recruit more muscle fibres, breathing in expands the rib cage then everything settles, in stages and rhythm, back to a relaxed mode with everything 'down' as the shot breaks.

Mention was made earlier that triggering commenced on the descent, it is specific to the shooter at what point they begin to squeeze the trigger. If it is a two stage trigger the first stage is usually taken up at the second 'stability' breath when the pistol settles at the top of the target so the triggering may be applied slightly later than a firearm with a long travel roll-off trigger.

You do not wait for optimum steadiness, the squeeze must have commenced so that everything (with practice) is reaching a point of co-ordination that at the optimum steadiness and sight acquisition in the aiming area, the shot breaks, usually within 4 or 5 seconds. The whole period from bench back to bench may be 14 seconds but the optimum triggering / co-ordination time appears to be 4 – 5 seconds. Eyesight focus can be maintained for about 8 seconds but the body's ability to maintain static balance deteriorates after 4 or 5 seconds. There appears to be a direct correlation between this and optimum shot delivery.

The SCATT is very good in showing shooters that their optimum time was much sooner than they thought. It is a great help in teaching shooters not to try and control the movement of the pistol, ignore the wobble and keep the sights aligned while continuing to smoothly squeeze the trigger. We have all heard this for years and it will always apply. It is not important what part of the finger is used provided it can press the trigger in a straight 'to the rear' direction, without disturbing the sights. Also the trigger finger from its base must be clear of the pistol and must not touch the pistol at any point other than the trigger. As a rule of thumb the more weight you have to press back, the more finger on the trigger. You may only use the tip to activate a free pistol trigger but have to use mid pad for a sport or centrefire pistol.

Again you need to use triggering exercises to see if the sights are disturbed by your normal triggering action and also coming off the trigger to allow the sear to re-engage. The bane of shooters, dry firing and over squeezing exercises graphically display all faults in these areas.

Gravity aids precision shooting, the pistol will descend, with practice, in a slow controlled line. The settle point will become constant with training, and you will lower or raise the sights to place the group in the middle of the target. Don't try to come up under the target and try to hold a tight pattern under the black as after a while it becomes too fatiguing and the groups will open up and stray shots will occur. Always come through and over the top of the target and drop. Only use the arm to raise the pistol, the shoulders should stay aligned and the head and the body should not change position from lift back to bench again. Follow the pistol up with the eyes only keeping the head still and in the one position from shot to shot as moving the head about will change the bullet impact point on the target.

Aim / Trigger

With any match using a white target with a black centre (international precision target, air target, electronic system) it is easier, particularly in less than ideal light conditions, to align the sights against the light background. The dark sights are silhouetted, one can quickly judge the proportions of the light gaps either side of the foresight and whether the sights are exactly level. During a long match and with fatigue possibly setting in, it is much easier to 'call the shot' and evaluate technique against the extreme contrast. Some shooters do 'aim on the bull'. At a distance the black centre will appear greyer than the pistol sights so there is some contrast.

It is better to begin with 'best practice methods' and that is to aim in the 'white' somewhere under the 'black' being careful not to hold a precise spot just under the black as the foresight may drift up into the black edge and not be noticed, causing high shots.

The precision shot begins with the shooter using his / her breath technique to relax and compose themselves for the shot, visualising the process of firing a good shot. Feel your body position in relation to the target, feel your strength / stability, grip the pistol with the same strength and position as last time and begin...

The arm is raised with a smooth inhalation of breath, through the middle of the target and above the target but must be within the backstop area, (1997 ISSF rule). Breath out and the arm will naturally lower following the reduction of air in the chest cavity. Some shooters continue this exhalation and the arm and pistol drop through the middle of the target and settle in the aiming area briefly and the shot breaks.

Shooting on one breath unless the athlete is highly trained can result in muscle fatigue and tremor, (not enough oxygen to maintain the load, and lack of oxygen will also create vision and balance disturbances). Again best practice techniques recommend the two breath method.

Breath in raise the pistol, breath out and settle somewhere above the black, take a hard look at the sights at this point, breath in, the arm will slightly raise, then breath out gently and the pistol will naturally / smoothly drop down through the target.

Keep watching the sights, triggering has commenced somewhere on the descent, the arm / pistol settles in the aiming area, the natural pause in breath occurs, and the shooter is maintaining a steady smooth squeeze on the trigger, concentrating on keeping the sights aligned and the shot breaks.

Maintain the sight picture recalling the movement of the pistol as the shot discharged, if everything has occurred in the same cyclic fashion as the shot before, this shot should impact in the same group as the previous ones. Do not release the trigger, maintain / hold everything as just before the shot. It is called 'follow through', fingers come off the trigger, grip relaxes, etc..



RANGE COMMANDS

The main range commands are:

LOAD

No pistol magazine or revolver cylinder may be loaded before the command "LOAD" is given unless the Range Officer specifically states that pistol magazines be loaded between each series. **THIS DOES NOT INCLUDE REVOLVER CYLINDERS.** If the Range Officer does allow the loading of pistol magazines, the magazines **SHALL NOT** be inserted into the pistol before the command "LOAD" is given.

START---("FIRE")

No shot may be fired before the command "START" is given. Note the correct command for any precision series is "START", however some Range Officers may still use the old command "FIRE".

ATTENTION

In a rapid fire or turning target series, the Range Officer will call "ATTENTION" at which time the shooter must lower his/her arm to the ready position (45 degrees).

No shot may be fired before the Targets face after the command "ATTENTION" is given or before the target/s have turned away from, then turned back towards the shooter.

After the command "ATTENTION" is given the targets will be turned away and in the Rapid Fire match the countdown of "3-2-1-START" will be given. The targets will then face within 3 seconds.

In the "Turning Target" or "Duelling" section of Centre Fire/Sports Pistol matches, no countdown is given and the Targets face the shooter in seven (7) seconds.

STOP---(CEASE FIRE)

No shot may be fired after the command "STOP" is given. All shooting MUST STOP IMMEDIATELY! It is a serious breach of Safety Regulations if a shot is fired after the command "STOP" is given. Note the correct command is "STOP", however some Range Officers may still use the old command "CEASE FIRE".

UNLOAD

At the command "UNLOAD" the shooter must open and lock back the slide if a self-loading pistol and remove the magazine from the pistol or, in the case of a revolver, open the cylinder and remove the cartridges then place the pistol on the bench and stand back from the shooting bay.

RANGE OFFICERS

At any time when shooting is taking place on the range, the shooters must be under the control of a Range Officer, who shall ensure that all Safety Regulations and club rules are adhered to. **The commands of the Range Officers MUST BE OBEYED AT ALL TIMES.** There must always be a designated Range Officer. Any experienced member may act as a Range Officer.

MALFUNCTIONS

In a precision course of fire if a pistol fails to operate in a normal manner, for example a shot fails to go off, the shooter should call upon the Range Officer by extending the non-shooting hand behind his/her back. **AT ALL TIMES KEEP THE PISTOL POINTED SAFELY "DOWN RANGE".**

DO NOT put the loaded pistol on the bench.

DO NOT remove the pistol until it is cleared by the Range Officer.

In a turning target course of fire, the shooter **MUST** lower his/her arm to the ready position. At all times keep the pistol pointed down range in a "safe" direction and notify the Range Officer by extending the non-shooting hand behind his/her back.

The Range Officer may not immediately acknowledge your declaration of a malfunction but will attend to you at the end of the series. Malfunctions may be acknowledged by the Range Officer touching your hand or by some other means.

ON NO ACCOUNT should the pistol be placed on the bench nor should the shooter attempt to clear the malfunction.

SHOOTERS should **ALWAYS** call upon the Range Officer to attend to **ANY** **MALFUNCTION.**

RAPID FIRE

Relatively straight forward, no time to breathe during shots. Breathing out while bringing the arm down by the 1 count and then the breath in at the raise for the first target. (Some Rapid fire shooters do it in reverse and have another little breath in at 'START' and punch it out at the three seconds arm raise, at top level people are individuals and do things that work for them).

STANDARD 20 & 10

Treat as a rapid fire shot and bring arm up into the white area aiming mark, there is no time to use a precision technique of dropping down into the white aiming area under the black, therefore the breath control is similar to rapid technique. In 20 second standard a breath needs to be taken. It can be a breath in and out, fire 2 shots, breathe in/out to recharge energy stores and then fire the last 3 shots, or vice versa 3 shots then breath etc. A breath must be taken as 20 seconds is too long to hold the breath and not cause deterioration in technique. No time for a breath in the 10 second series.

The pistol is lowered to just above the target, or to the top of the target. It is here that the final fine aim and concentration is focused. A second 'stabilizing' breath is taken usually only a very small inhalation, alignment breath, then exhaling shallowly, slowly as the arm lowers into the aiming area. At some point, individual to the athlete the triggering sequence begins, and the pistol settles into the area somewhere below the black. Gravity aids the pistol to lower and settle in a controlled straight line. The suspension of breathing coincides with the pistol settling into this aiming area, where with proper trigger co-ordination the shot breaks, optimally in 4-5 seconds. After follow through, the sight alignment and hold is maintained as you inhale, the arm will raise slightly and then the pistol is lowered through the same middle line to the bench while you exhale slowly. Arm and grip tension is released while taking the 2 or 3 breaths before preparing for next shot. This cyclic method can be developed individually, using the breathing as timing, relaxed breaths while resting on the bench, the arm raise breath, lowering, exhalation, pause, inhale, final aim, shot release, inhale, exhale lowering to bench – always moving up and down along the same imaginary mid line, the sight, acquisition and trigger becomes part of the sequence, it is trained so it becomes automatic and is an easy 'flowing' technique which works extremely well in competition. Another example of using breathing as timing is in 20 second Standard, a breath must be taken in that time,(the whys were explained in the first part of this article), so there could be three shots, breath, then two more shots, practiced and using the same sequence timing.

RAPID FIRE STAGES

The arm and pistol needs to be raised quickly into the centre of the target, in a controlled rhythmic manner and the shot must break as soon as the pistol reaches this position. Although there are variations the recommended method for 'duelling' is:-

After the sight picture,- breathe in breathe out-while coming down to the 'ready' position,- breathe in, breathe out (controlled slow and smooth) TARGETS FACE/RED LIGHT GOES OFF, little breath in as you raise the pistol to the centre. 'Shot breaks, flow through'. Little breath comes out at the relaxation after follow through-breathe in the breath out as the pistol lowers to the 'ready', breathe in, breathe out-while at the 'ready' TARGETS FACE/RED LIGHT GOES OFF, take a little breath in as you raise to the centre, and so on for the rest of the series. Practice this to get you timing and rhythm. If using paper targets, after the first appearance where you must be at the ready, before the targets turn away, use the edge on position of the target to bring your pistol down and easily realign, it also reinforces follow through because you are holding the pistol in the aiming position waiting for the target to turn away. Breathe in, breathe out while flowing the sights down the edge of the target, which is course is dead centre. Using eyes only, do not change head position. This edge on relocation helps new shooters in particular, to bring the arm back to a straight central position in preparation for the next shot. (RED LIGHT is for Electronic Targets).

Notes

OVERVIEW OF THE MATCHES

There are seven (7) ISSF (International Sport Shooting Federation) matches, five of which are shot at the Olympic Games and also at Club, State and National Championship levels. The Olympic matches are Rapid Fire, Air Pistol, (Men's and Women's), Women's Sport Pistol and 50m (Free) Pistol. The other ISSF events are Standard Pistol and Centre Fire which are also included at Commonwealth Games. The other matches controlled by Pistol Australia include Black Powder and Service Pistol events.

For All Events

Clothing, Equipment & Accessories.

Pistol shooters compete without the benefit of special clothing, gloves or boots. Most athletes wear flat-soled shoes for increased stability, but footwear must not extend above the shooter's ankle.

Competitors frequently wear a cover over their "non-shooting" eye to prevent squinting. Special caps designed to limit the Athlete's field of vision are common; ear and eye protection are a necessity. Spotting scopes allow athletes to view their targets in 25 and 50 metre competition. Generally a SIGHTING SERIES will be allowed at the beginning of all matches.

Free Pistol (50m Pistol)

Free Pistol, a precision men's event, has been part of the Olympics since 1896. Competitors shoot .22 calibre pistols from 50 metres at precision targets with a 5cm 10 ring.

The Pistols: A free pistol is easily identified by its grip, which may completely envelope and stabilizes the shooter's hand. Regulations require only that it fires .22 calibre long rifle cartridges, has metallic sights and does not lock the wrist. The pistol's barrel is longer than that of other pistols providing greater accuracy at this longer shooting distance.

Course of Fire: Competitors fire 60 shots plus sighters in two hours.

Perfect match Score: 600 is a perfect score, and 565 is world class.

Finals: The top eight competitors advance to a 10-shot final round, with 75 seconds allotted for each shot. The final is scores in tenths of a point and added to the match score to determine winners. A perfect final score is 109.

Perfect Aggregate (Match & Final) Score: 709 points.

trying again. Because shooters have to suspend breathing and particularly once you are well into a long match, muscles and nerve tissues can be adversely affected by oxygen starvation (hypoxia), which causes tremor, fatigue and deterioration in the fine touch, eyesight and balance. One side benefit from cardiovascular training is that it is excellent for stress management. With the excitement of competition, the pulse rate/heartbeat increase. After a programme of endurance training, a person's resting heart is much lower. In a competitive situation, the trained person, even though their heart rate is increased (due to the production of adrenaline) it is still much lower than "aroused" heart rate of a competitor who is not aerobically fit. A great advantage in high intensity competition, of course the pre competition techniques are not ignored such as centreing and mental imagery to create a prepared athlete, but it provides the optimum base to start from.

To Summarize: Train for an improved cardiovascular system and maintain effective oxygen supply throughout the match by developing a rhythmic breathing pattern to suit the time/structure of the match.

BREATHING METHOD- PRECISION

Best precision results are achieved if the breath is held/suspended at the natural respiratory pause. We normally breath in/out and about 2 seconds later we have to breath in/out again, this approximate 2 second gap before we take in air again is called the natural respiratory pause and it is usual, that it is at that point where shooters extend that time for up to 10 seconds, (standard pistol) so they can fire a shot without the movement of the chest disturbing the sight alignment and aiming level.

Firing a shot on exhalation, means that the torso and spine are lowered and relaxed, this lowered state of the body aids stability. Inhalation and holding of the breath is usually something done under tension. You suck in a breath if you receive a fright. Exhaling and breathing out slowly and naturally is relaxing, all the air is not forced from the lungs just a lowered relaxed position is achieved.

PRECISION TECHNIQUE

While visualizing/scripting/preparing for the shot, breathe naturally, approximately three times, they can be slow shallow clearing breaths, but not deep rapid breaths that can cause dizziness. (Hyperventilation). Once you are ready for the shot, raise the arm slowly while steadily inhaling. Raise the arm up over the target using the muscles of the back and shoulder only, do not lean back and always lift from the bench up through the middle of the target. (If you are training precision always use a bench so you can lift and lower the pistol straight up and down). This arm raise properly stretches the muscles so they can also contract and support effectively. Lower the arm in the same straight down direction while exhaling, this is a slow relaxed exhalation and lowering of the pistol.

Breath Control

The function of a good breathing pattern in shooting is :

To deliver oxygen to the body, especially the working muscles and

To be the basis of rhythmic shooting technique ie it provides the basic timing underlying a cyclic shooting routine.

The NCC describes it this way "in order to keep the pistol as immobile as possible one must hold his breath for a length of time required to steady the hold and fire an accurate shot.

Breath control must be applied systematically and uniformly then it will aid concentration and rhythm".

Now to the why and how:-

An efficient supply of oxygen is required to enable the muscles to support the skeletal system and maintain load without fatigue. It requires specific and intense physical effort to stand motionless, supporting the weight of an outstretched arm and pistol while suspending breathing. To condition the body, endurance or aerobic training is the most effective method to produce stamina. General strength and conditioning (own body weight exercises or supervised gym work) which becomes more specific pre competition is carried out supplementary to this training. This cardiovascular training involves sustained exercise that increases the heart rate steadily and maintains this increase for a period of time. Examples are ½ hour jog/run, 1 hour brisk walk, ½ to 1 hour swim, usually 3 times per week is enough to maintain the fitness level required. While building up to this level, particularly very early in the training programme, there may be more emphasis on this physical conditioning and it may be a daily routine depending on the individual's age and base fitness level. Providing the intensity of the effort still allows for conversation, (this simple guide is a personal monitor particularly if your programme is to run), if you are gasping for breath and cannot talk the intensity is too high, back it off, and with training over 10-12 weeks you'll be able to do much more, easily. If you begin at too high a level, you won't continue and possibly injure yourself.

The changes that occur from this aerobic training are:-

The heart cavities enlarge and the cardiac muscle has improved contractility. Which means that the heart can pump out more blood each beat, so it doesn't have to beat so frequently. The lungs are conditioned also, and they transfer more oxygen into the blood, (pulmonary diffusion capacity). This improvement means more oxygen can be delivered to the working muscles. This oxygen is required to utilize the glycogen and fats in the muscle without the build up of lactic acid. This accumulated acid causes stiffness and fatigue and once produced will take 45-60 minutes to dissipate. It takes approximately 50 seconds for a muscle to replenish/recharge after the supply is exhausted, so it is very important (even though shooting will not deplete reserves as quick as throwing a shot put for instance) if repeated attempts are made to fire a shot, sufficient recovery time is allowed before the next shot. You have experienced an aborted shot when the next attempt is worse, it can be nerves but it is more likely that the deterioration is caused by the fact that you haven't taken about three slow relaxing breaths while releasing the tension in the arm and hand (to allow blood flow) before

Air Pistol

With separate events for men and women, Air Pistol shooting joined the Olympic Programme in 1988. Competitors use .177 calibre pistols to fire lead pellets at targets 10 metres away. The bulls-eye has a 10mm 10 ring, with the entire target being just 15cm across. World class air pistols (e.g. Feinwerkbau, Walther, Steyr and Morini) are air or gas-powered pistols. Trigger weight can be no lighter than 500 grams; the width of the grip and length of the barrel are also limited.

Course of Fire: Men take 60 shots plus sighters in one hour and 45 minutes, while women have one hour and 15 minutes for 40 shots and sighters.

Perfect Match Score: For men, 600 is perfect and 585 is world class. For women 400 is perfect and 385 is world class.

Finals: The top eight competitors advance to a 10 shot final round, with 75 seconds allotted for each shot. The final is scored in tenths of a point and added to the match score to determine medallists. A perfect final score is 109.

Perfect Aggregate: (Match & Final) Score: 709 for men, 509 for women.

Rapid Fire

Rapid Fire pistol has been an Olympic event since the first modern Games in 1896. Shot with a .22 calibre pistol from 25 metres, competitors have eight, six, or four seconds to fire one shot at each of five adjacent targets. As an added difficulty, pistols must be held downward at a 45 degree angle until the targets rotate from edge on to face the shooter. The 10 ring on this target is 10cm wide.

The Pistols: Rapid Fire pistols shoot .22 cartridges (ammunition) with a minimum velocity of 250m/sec, minimum bullet weight of 39gr.. from a five-shot magazine and is essentially the same pistol used for the Standard Pistol event.

Course of Fire: Two five shot series each of eight seconds, two series each of six seconds and two series each of four seconds comprise a half course, fired in one day. The following day, or as programmed, the same course is repeated. Sighters consist of 5 shots in eight seconds prior to each series. Only one malfunction is allowed in each series

Perfect Match Score: 600 is a perfect score, with 592 being world class. **Finals:** After 60 shots, the top six shooters fire a final consisting of four five shot series at four seconds. When there are more than six eligible shooters for the final series because of tied scores, the tie will be broken by shoot off on the qualification range. This shoot off includes one 4 second sighting series and one 4 second shoot off series. In the event of further tied scores, the shoot off will be continued until the tie is broken. The final is scored in tenths of a point and added to the match score to determine medal winners. A perfect final score is 218.

Perfect Aggregate: (Match & Final) Score: 819 points.

SPECIFIC RULES FOR THE RAPID FIRE PISTOL EVENT

The Rapid Fire Pistol event is shot on the 25m. Rapid Fire Pistol Targets. Preparation time is 3 minutes. The event is 60 competition shots divided into two stages of 30 shots each. Each stage is subdivided into six (6) series of five (5) shots each. Two in eight (8) seconds, two in six (6) seconds and two in four (4) seconds. In each series one shot is fired at each of the five targets in the specified time limit for the series.

Before the beginning of each stage, the shooter may fire one sighting series of five shots in 8 seconds. The first stage of 30 shots must be completed by all shooters before the second stage may begin. All SHOOTING (sighting and competition series) is done by command. At least two shooters in the same range section must fire at the same time, but organizers may arrange for more than one range section to fire simultaneously under centralised commands. If a pistol of any of the shooters firing together has a MALFUNCTION the MALFUNCTION SERIES MUST BE FIRED by those concerned before the next competition series for all shooters in the group may be started.

BEFORE the range officer gives the command "LOAD" he must announce the series time. (Such as "8" seconds series, or six second series, etc), or the series time must be indicated in some manner, such as using a numbered sign of sufficient size as to be visible to the shooter. When the Range Officer gives the command "LOAD", the shooters must prepare themselves for their series within one minute. When the time has expired the Range Officers must give the commands 'ATTENTION' – The targets are then turned to the "edge on" position and the range officers calls "3-2-1-START". The command START is the signal to face the targets. The shooters must be in the ready position at the end of the countdown "1". The targets must face in 3 seconds (+/-1.0 sec) after the command "START" and firing may begin. The time delay should remain constant throughout the competition. The moment the targets begin to face, the shooters may raise their pistols. If the targets appear too soon (less than 2 seconds) or too late (more than 4 seconds) and no shots have been fired, the shooter may ask for the procedure to be repeated. If the shooter has fired, he will not be allowed to repeat the series. A series of shots is considered as having started from the moment the targets turn away from the shooters after the command-"ATTENTION". Every shot fired after that will be counted in the competition.

you move your body accordingly. This shows up, particularly with too front on stances. If there is no platform, or 'floor up' stability, a compromise needs to be made. The arm can be trained to point and 'aim' more easily, than a swaying unstable body can be taught to stand still for the long periods required in matches such as "Free pistol and Air. Some of our elite shooters 'fall over' as the shot breaks because of floor up instability, the total focus is on the sights and body movement is unperceived. Gym work can train the stabilizing muscles to provide maximum aid much faster than years of on range shooting. This grounded stable platform must be aided by suitable footwear, low shoes with firm not over flexing soles, such as in running shoes, need to be worn. Special shooting shoes are available, or a good pair of leather or firm rubber soled shoes providing heel support and a wide 'toe box' to aid full contact with the 'floor' are suitable.

Rapid Fire Stance

In the rapid fire stage of sport/center fire, the dueling motion of bringing the arm up rapidly toward the middle of the target requires good stability front-to-back but because it is a relatively quick event the side-to-side stability is secondary. It cannot altogether be overlooked: there must not be a sideways drift between dueling shots. Otherwise the shot pattern will vary, some left, some right, yet all on the same horizontal plane. This body movement negates good trigger control. Because we do require more front to back stability, the heavy arm and pistol having to be moved rapidly away from the body, a slightly wider foot position may be helpful or even the toes of the front foot turned toward the target line. This changes our invisible base from an even square where we place our body / feet across to bisect at approximately 45 degrees, to a rectangle, longer front to back which aids in the control of the arm movement. Again find out what works for you, these are broad principles and everyone is an individual. Many shooters use the same stance in every match.

The stable, bio-mechanically efficient, precision stance should be used for all slow precision shooting and many do not vary this for rapid fire stages. The wider stance is not recommended for precision, as it puts tension on, through the hips, knees to the ankle joints and over a long period of time can cause fatigue.

For rapid fire, which takes from eight down to four seconds duration, the main emphasis is good control on the lift to the first target and a level traverse to the remaining four targets. Most rapid-fire shooters use a wider stance than is usual for precision events.

A close foot position aids in rotation (picture a skater in your minds eye, when they want to spin faster they bring their arms and feet closer to their body) which is required for the traverse, however, if the body rotates too quickly there is not the control to momentarily pause at each target, so a wider stance aids in this control. However a too wide stance will cause the hips to roll, creating a dip or lowering, of the forward hip and a resistance to the rotation and a less smooth traverse. It is a possible factor in the ARM ONLY poor technique, which can easily be spotted by the shot pattern across the target. First target is level and the rest of the shots drop down in an arc, so the last target has the lowest positioned shot, none are in a level line.

f. The head is held naturally without tilting. The non-shooting hand is secured in pocket or the hand is placed under / over a belt etc at mid point (navel). Shooters who hook their hand in a belt need to be aware not to go past mid point as the arm if pulled too far across the body causes the upper torso to twist and the shoulder position changes. When on aim the non-shooting shoulder can appear to be much lower. This is because the shooting arm and shoulder joint have been pulled up and back by muscle contraction, whereas the non-shooting shoulder and arm are in a relaxed, lowered position. There is a natural bodily balance that comes into effect, but it is not initiated deliberately by the shooter. The 'great lean back' is very common to untrained and unfit shooters, particularly in the 'dueling' stage they help the pistol to rise by leaning away as the arm rises. Because of the relaxed abdomen (pot belly) over the pelvis and non shooting arm held within the body line it can appear as if a shooter is leaning back, when in fact they are relatively upright their weight evenly balanced over the feet. An efficient stance is one that balanced the forces acting on the body. As we have a small platform to stand on (our feet) and our bodies are relatively tall and narrow compared to our base, if we stand still for too long we tend to sway. Particularly as we have one arm held out. It's all a matter of balance and biomechanics. Our pistol weighs approximately 1-1.4 kgs and our arm weight is between 4-6 kgs, therefore if we point our arm out at shoulder height, towards the target with a load on the end of it, (the pistol) and we are facing almost full on to the target our bodies will sway back to front, trying to balance, and this "too front on" stance will give us high and low shots on the target. If we stand side on with our arm pointing out from our side to the target, we're more stable front to back so we'll tend to sway side to side and the shots will string across the target. Highly trained shooters can stand still for long periods and some do use a really 'side on to the target stance' usually with a lean thrown in for good measure. This position places extreme strain on the shoulder joint, and lower back. After a few years of shooting there can be permanent damage to the shoulder, also the head needs to be turned more side on, twisting the neck, which can restrict blood flow to the brain and eyes causing loss of balance and visual fatigue. The simplest method is begin your stance position at about 45 degrees to the shooting line, feet parallel, approximately shoulder width apart. This 'universal' stance bisects the forces, side to side and back to front, which act against your stability, when your arm is held out under load. The body remains in alignment without twisting of the hips or shoulders, over the feet and balanced. When the arm and pistol are pointed straight ahead towards the target the head is turned slightly to look down the sights but nothing is strained, so the onset of fatigue will be much less than if a more exaggerated shooting position is adopted. Minor feet adjustments are made by closing the eyes and checking the arm/sights on the target. Obviously every one is different and you should refine what 'works for you' by experimentation.

CAUTION: Because of recoil and the necessity of good follow through it is not recommended that a stance be more face on to the target, but providing there is no sway, a stance can be further towards a 'side on' stance than the 45 degrees. There is a natural position your arm likes to settle in, but sometimes this results in the shooter almost falling over with body movement, because he/she has been told the stance is where the arm wants to point, so

Standard Pistol

Standard Pistol is a combination of slow fire and rapid fire shooting. Competitors shoot .22 calibre pistols from 25 metres at precision targets with a 5cm 10 ring.

The Pistols: Standard pistols shoot .22 calibre ammunition from a five-shot magazine and must be capable of fitting within the standard competition box..

Course of Fire: Preparation time is 5 minutes. Competitors fire 60 shots in three timed series. The first series is shooting 5 shots in 150 seconds. This is repeated until a series of 20 shots has been fired. The second series is shooting 5 shots in 20 seconds. This is repeated until a total of 20 shots has been fired. The third series is shooting 5 shots in 10 seconds. Again, this is repeated until a total of 20 shots has been fired.

Perfect Match Score: 600 is a perfect score, and 570 is a good score.

Finals: Finals are not contested in this event, however, if two or more shooters are tied for 1st, 2nd or 3rd, a 'shoot off' is held. This consists of 3 sets of 5 shots in 10 seconds. A perfect shoot off score is 150.

The standard pistol event is shot on the international precision target. The pistol used is a .22 calibre long rifle. Total weight 1400 grams. Trigger weight of 1000 gram. Sight radius of 220mm plus box size restrictions and rules 4.5 to 4.5(f). The event programme is 60 competition shots divided into 3 stages of 20 shots each. Each stage consists of 4 series of 5 shots. The first stage consists of 4 series of 5 shots in a time limit of 150 seconds per series. The second stage consists of 4 series of 5 shots with a time limit of 20 seconds per series. The third stage consists of 4 series of 5 shots with a time limit of 10 seconds per series. Before the competition begins, a series of 5 sighting shots may be fired within a time limit of 150 seconds. The maximum allowable malfunctions are one in the 150 sec. series and one in either the 20 or 10 sec. series..

PREPARATION TIME WILL BE 5 MINUTES.

The Range Officer must announce the series time. After the command "LOAD" the range officer must allow the shooters ONE MINUTE to prepare. At the expiration of one minute the Range Officer must call "ATTENTION". At this call (except in the 150 sec. Series), all pistols must be lowered to the ready position before the targets are turned away. The targets are then turned away. The targets must then face the shooter for the prescribed time period according to the programme. The targets must face the competitors after a delay of 7 seconds. During each series the competitor will fire 5 shots. A series is considered as having started from the moment the targets turn away after command "ATTENTION". Every shot fired after that must be counted in the competition.

Centre Fire / Sport Pistol

Centre Fire competitors use "Centre Fire" pistols with an allowable calibre of 7.62mm to 9.65mm (.30, .32, .38 and .357 calibre) to shoot precision and rapid-fire competition from a distance of 25 metres. The precision target has a 5cm 10-ring, while the rapid fire has a 10cm Centre.

The pistols: Centre Fire pistols shoot five shots of .30, .32, .38 or .357 calibre ammunition from 'self-loading' pistols or revolvers without the advantage of ported baffles or wrap-around grips, as in rapid-fire.

Course of Fire: The 60-shot match is divided into 30 shots precision with preparation time of 5 minutes and 30 shots rapid-fire with the preparation time of 3 minutes. The precision, or slow-fire stage, is fired in six series of five shots and competitors have five minutes per series. In the 30-shot rapid-fire stage, competitors shoot strings of five shots. Three seconds are allotted for each shot, followed by seven seconds of rest. Allowable malfunctions are one per series.

Perfect Match Score: 600 is a perfect score, with 585 being world-class.

Finals: Finals are not contested in this event, however, if two or more shooters are tied for 1st, 2nd or 3rd, a 'shoot-off' is held. This consists of three sets of 5 shots as per the rapid-fire stage. A perfect shoot off score is 150.

Sport Pistol has been a Women's Olympic event since 1984. Athletes use .22 calibre pistols to shoot precision and rapid-fire competition from a distance of 25 metres. The precision target has a 5-cm 10-ring, while the rapid-fire target has a 10cm Centre.

The Pistols: Sport pistols with an allowable minimum trigger weight of 1000 grams shooting .22-calibre ammunition from a five-shot magazine.

Course of Fire: The 60-shot match is divided into 30 shots precision with preparation time of 5 minutes and thirty shots rapid-fire with a preparation time of 3 minutes. The precision, or slow-fire stage, is fired in a six series of five shots, and competitors have five minutes per series. In the 30-shot rapid-fire stage, competitors shoot rounds of five shots. Three seconds are allotted for each shot, followed by seven seconds of rest. Malfunctions allowed are one per series.

Perfect Match Score: 600 is a perfect score, with 585 being world-class.

Finals: The top eight competitors advance to a final, which consists of one sighting and 4 competition series of 5 shots in rapid fire (3 second exposure). Targets are scored after each series and added to the match score to determine medallists. A perfect final score is 200.

Perfect Aggregate (Match + Final) Score: 800 points

Stance

The stance must provide the greatest degree of balance and stability of the shooter's body and pistol, with the least possible strain on the muscular and skeletal system.

The requirements of a good stance for ISSF precision are :

- The feet are placed shoulder width apart and approximately parallel with the weight distributed evenly over both feet.
- Shoes need to have a wide toe box so that the toes are not cramped. When achieving this balanced stance, 'feel' the ground as the body is balanced over the whole foot, and toes are in contact. A common error is that the shooter distributes their weight on the 'round' of the heel. Place the whole foot on the ground, it does mean that the pelvis is tilted slightly forward so the body weight is balanced evenly over the feet.
- Legs are straight, knees are straight, but not firmly locked, and there is mild tension felt on the front of the legs above the knees.
- Hips are level, torso is held in a relaxed upright position, abdomen is relaxed. Body weight is over the whole foot with the shoulders approximately level.
- The pistol is raised using the muscles of the shoulder and back. Deliberately leaning back to aid the raising of the pistol places tension and strain on the lower back and hip joint.



Three Views of an Effective Stance

but it is more usual to be further onto the finger pad to gain the same smooth control. In double action/double handed firing, and particularly with revolvers, the trigger is usually placed back towards the first joint or even in the crease of the first joint.

It is helpful to dry fire and watch for any changes in the sight alignment and then decide for yourself what your finger position will be for that particular pistol, observing the parameters above.

If the grip on the pistol is correct, recoil should be transmitted straight to the rear into the shooting arm and shoulder. Orthopedic grips facilitate the acquiring of a correct grip because the pistol can be easily placed in the hand in the same position. These grips are designed and/or modified so that they can only be comfortably placed this same way each time. A pistol with a straight, slab sided grip, provided it is gripped in the same manner and with the same strength, will also provide consistency shot to shot.

The higher up a grip is held, the less the pistol will pivot and the barrel will rise less in recoil enabling a quicker sight recovery. It is important to remember this when using a revolver or self-loader that has a standard set of grips. A common error, because the orthopedic grip is so comfortable, is to forget to hold onto it with the same strength pressure each time it is fired. Holding the grip pressure can restrict blood flow to the hand causing fatigue and tremor that can destroy control and promote erratic triggering. The hand must be relaxed, in the grip, from time to time to allow for the blood flow to revitalize muscles and nerves.

REMEMBER: SAME PRESSURE SHOT TO SHOT, SERIES TO SERIES-TRIGGER FINGER MUST BE FREE OF GRIP – SQUEEZE THE TRIGGER IN A STRAIGHT BACK DIRECTION SMOOTHLY AND PROGRESSIVELY. FINGER POSITION UNIMPORTANT PROVIDED THE TRIGGER CAN BE PRESSED IN A STRAIGHT BACK DIRECTION WITHOUT DISTURBING THE SIGHT ALIGNMENT.

SPECIFIC RULES FOR CENTRE-FIRE AND SPORT PISTOL EVENTS

MEN SHOOT CENTRE FIRE PISTOL EVENT WOMEN AND JUNIORS SHOOT THE SPORT PISTOL EVENT WITH A .22 CALIBRE PISTOL. The programme for each event is 60 competition shots divided into two stages of 30 shots each precision stage and a rapid fire stage.

PRECISION STAGE.

Preparation time is five minutes.

The precision stage is shot on the international precision target.

The precision stage consists of 30 competition shots, fired in six series of 5 shots each.

The time limit for each series is five (5) minutes.

Before the precision stage begins a series of 5 sighting shots may be fired with a time limit of five minutes.

Before each series the range officer must announce the series and give the command "LOAD".

After ONE MINUTE has been allowed to load the pistols firing will begin on the appropriate command "START".

A series is considered as having started from the moment the command "START" is given or the Targets begin to face. Every shot after that should be counted in the competition.

RAPID FIRE STAGE

All shooters must complete the precision stage before the rapid-fire section may begin.

Preparation time is three minutes.

The rapid-fire section is shot on the international rapid-fire target.

The rapid-fire stage consists of consists of thirty competition shots; fired in six (6) series of five (5) shots each.

During each series the target is shown five times, each time for three seconds. The time between each showing is 7 seconds.

Only one shot will be fired during each appearance of the target.

Before the stage begins, a series of five (5) sighting shots may be fired.

The range officer must announce the series.

After the command "LOAD", the Range Officer must allow the shooters ONE MINUTE to prepare. When the time has expired the Range Officer calls "ATTENTION"

AT this call all pistols must be lowered to the ready position. The targets must then be turned away (TO EDGE ON POSITION).

The targets must face the shooters for 3 seconds after a 7 second delay.

After each shot is fired the shooter must lower his arm to the ready position and it must remain lowered.

The shooter must adopt the ready position and his shooting arm must remain motionless before the target appears.

A series is considered as having started the moment the range officer calls "ATTENTION".

Every shot fired after that must be counted in the competition. The targets are scored and patched after every five (5) shot series.

Short Barrel Match

The competition requires a normal set of five rapid-fire turning targets on a 25m range (the firing line is actually on the 22.85m [25yds] with barricades similar to those for Service Pistol, set forward from the 25m line).

Now for the interesting bit – The pistol. Centre Fire Pistol or Revolver (.30 to .380). It must not be modified in any way or specifically chambered for wad cutters (i.e. target self-loaders). Only original factory sights are allowed – the addition of sight ribs is not permissible. The maximum barrel length is 105 mm for a revolver, 125 mm for a self-loader. Maximum sight radius is firearm specific and max weight is 1250 gms.. Only factory grips, or grips of similar profile, are allowed. The trigger pull is the same as for Centre Fire – minimum 1360 gms.

Ammunition of minimum power factor of 60 000 (that is half the power factor for service. It is a mild load, e.g. 100grain bullet at 600 fps). Jacketed projectiles are not permitted. All the ammo for each series is to be carried in your normal clothing pocket, and is to be loaded from the pocket to the pistol (no speed loaders or extra magazines allowed). An unloaded pistol may be holstered during the loading of the magazine, however each series commences from the ready position, except for the first, where, on command, the pistol is loaded and placed down on the firing line.

The match consists of 65 shot over four stages. The pistol may be supported with the “non-shooting” hand in all series (except for section 2ii below).

1. Total 25 shots at 22.85m (25yds)

Five series of five shots in a total of 210 seconds.

5 shots “Prone” on target 5 – reload – 5 shots “Sitting” on target 4 – reload – 5 shots “Kneeling” on target 3 – reload – 5 shots right side of barricade (pistol in right hand) on target 2 – reload – 5 shots left side of barricade (pistol in left hand) on target 1 – unload.

1. Total of 15 shots at 22.5m.

Three series of five shots

- Standing clear of barricade 3 shots on target 1, and two shots on target two – in 6 seconds.
- 1 shot on target 2 – 2 shots on target 3 and 2 shots on target 4 – in 6 seconds.
- 5 shots on target 5 in Centre fire rapid-fire sequence (i.e. targets face 3 seconds – away 7 seconds)

2. Total of 15 shots at 9.14m (10 yds). Three series of five shots.

- i. 5 shots on target 5 – in 4 seconds.
- ii. 5 shots on target 4 – in 6 seconds. Pistol held in weak hand only.
- iii. 3 shots on target 1 and 2 shots on target 2 – in 4 seconds.

3. Total of 10 shots at 6.4m (7yds).

- i. Two series of 5 shots in total of 25 seconds.

From the crouch position – 5 shots on target 1 – reload – 5 shots on target 2.

Note :-

PISTOLS MAY ONLY BE LOADED ON COMMAND OF THE RANGE OFFICER. LOADING WHILST MOVING FORWARD IS NOT PERMITTED.

Grip

The correct grip is one that provides the shooter with maximum control over the pistol. It must also allow for natural sight alignment and when straight to the rear pressure is applied to the trigger, the sight alignment must not be disturbed. No extra effort should have to be made to maintain the position of the front sight within the rear sight notch. To make the grip, the pistol is held under the barrel, by the non-shooting hand, the fingers grasp the frame/ barrel and the whole hand is well away from the muzzle, which is pointed away from the body, and downrange. Then the pistol is placed into the shooting hand so that the top of the grip and the rear sights are placed into the V formed between the thumb and the base of the index finger. The pistol is pushed back into the hand, the fingers naturally clasp the grip, fine adjustments and feel are recognized, the support hand is removed from the pistol, sights are checked for alignment and readjustments are made again if necessary (if orthopedic grip is correct no adjustment should need to be made – with a slab sided grip some adjustment may be necessary). The pistol is now held in this position for the series and the required gripping pressure is initiated for the specific match stage.

The middle finger applies the major holding strength, across the front of the grip. If the grip is too narrow or small, or a slab grip, the fingers may come too far around the front of the grip and care must be taken, so that fingertips do not apply squeeze pressure sideways. This may be noticed in precision but with timed fire the problem may be overlooked. The thumb also plays a passive role and rests comfortably but does not apply any holding force. The fingertip and thumb pressures are one of the major causes of shot displacement.

The pistol should be gripped firmly enough so that slipping or shifting of the grip will not occur during firing, however a too firm grip will induce tremor. Grip pressure is an individual thing but it can be related to the amount of pressure that needs to be exerted on the trigger and the increased recoil in larger calibre pistols. There will be not be the need to grip an air pistol, or free pistol with the same firmness that is required to control a centrefire or black powder pistol. There should not be any change in the gripping force on the pistol from shot to shot, as any variation will cause the pistol to behave differently in recoil and/or displace sight positioning on triggering, causing the impact point to vary despite having good triggering/aim technique.

The trigger finger should apply progressive ‘straight to the rear’ pressure as an independent action. The trigger finger should not touch the frame.

Yet this does not mean that some people with short, fat fingers or very small hands may not be able to use certain brands of pistols, because, there simply is not a suitable grip available or enough wood to carve away. The finger should be placed in the same position on the trigger for every shot. Again this is an individual choice. Provided the trigger can be squeezed, in a straight back direction, without causing the sights to be misaligned, the tip, middle of the first joint (mid pad) or the first joint crease, or anywhere for that matter, is acceptable.

This finger position also directly relates to trigger weight and calibre, and required frequency rate of pressing (as in 10 sec standard). It is easier to fire a free pistol, using fine sensitive fingertip pressure, than to squeeze a 1360-gram centrefire trigger, in a straight back direction, using the same fingertip position. This requires much more strength and control. It can be done

The Shot

PREPARATION:

1. RECALL THIS SEQUENCE
2. ENSURE A CORRECT, CONSISTANT GRIP
3. LOAD THE PISTOL
4. ESTABLISH AND CHECK STANCE

EXECUTION

1. LIFT THE PISTOL AND START TO ALIGN SIGHTS
2. 2. WHEN THE SIGHTS REACH THE WHITE AREA START THE TRIGGER PRESSURE.
3. CONTINUE PULLING THE TRIGGER – CONCENTRATE ON LINING UP THE SIGHTS
4. IF THE SHOT DOES NOT BREAK AFTER 8 –10 SECONDS – CANCEL

ANALYSIS

1. AFTER THE SHOT KEEP WATCHING SIGHTS – FOLLOW THROUGH
2. TRY TO DETERMINE THE RELATIONSHIP OF SIGHTS AND HOLD – CALL THE SHOT
3. ANALYSE ANY ERROR

SIGHT ALIGNMENT – HOLDING PICTURE

- e. FOCUS ON THE FRONT SIGHT
- f. HOLD IN THE WHITE AREA BELOW THE BLACK



Service Pistol

The Service Pistol match consists of the same course fire as Service Pistol Unrestricted event, however there is a 'power factor' and drawing from the holster involved. Competitors must undertake a competency and holster safety test before being permitted to compete in the service Pistol event. NO optical sights are permitted in these matches and the weight of the trigger pull must be at least 1360 gms.. Self-loading pistols or Revolvers are permitted in either event. Minimum barrell length is 100 mm for revolver and 120 mm self loaders.

Course of Fire: This event consists of ninety rounds divided into a number of timed sequences and over various distances. (Note that the distances are quoted in 'yards' not 'metres').

The targets are the old 'oval' Rapid-Fire targets, with each shooter having four targets, numbered one to four (left to right) to fire at. The 10 ring is 10cm wide by 20cm high, with the entire target scoring out of the 6 ring, and measures 45cm wide by 80cm high.

50 yards- The first stage is shot at fifty yards and is limited to two and a half minutes. In the first part the shooter must lie prone and fire 6 shots on target 4, reload, assume the sitting or kneeling position and fire 6 shots on target 3, reload, from the right hand barricade fire 6 shots on target 2, reload, then, with the pistol in the left hand, from the left hand barricade, fire 6 shots on target 1 and unload.

25 yards – The second stage is shot over a distance of twenty-five yards and has a total of thirty-six rounds in it. The first timed series is 15 seconds in which to fire the next six rounds on the right side of the barricade (T4). The second series is the same except from the left side of the barricade (T3). The final series is a total of twelve shots, this time, 6 shots from each side of the barricade with reloading in the middle. 35 seconds is allowed for this final series. (T1 and T2).

After the targets are scored, another twelve rounds are shot from the twenty-five yard distance. First three shots each at targets 1 and 2 in 6 seconds, then 2 shots each at targets 2, 3, and 4 in 6 seconds. This section is shot standing free from the barricade.

10 Yards – This is shot using both the right and the left hands supported and unsupported. The stage involves having to fire off six rounds in only four seconds. (T4). The second part is harder, having to fire 3 rounds from each hand, using one hand only, in 8 seconds. Then, (using both hands) shooting 3 shots each at targets 1 and 2 in just 4 seconds.

7 Yards – In the last stage the shooter is only 7 yards away from the target and must fire off twelve rounds in fifteen seconds. This must be done instinctively, that is the pistol is not to be held above shoulder height (no aiming), and reloading after the first six shots. (Targets 1 and 2).

This event generally has the shooters moving down the range towards the target at specified distances, leaving them exposed to the weather conditions and often having to deal with changing light and glare on the sights. (Ants can also be a problem when lying down at the 50-yard stage!)

Perfect Score: 900 is a perfect score, and 870 is good shooting.

Action Match

The shooter stands poised ready, hands raised above his shoulders, loaded revolver resting securely in his holster. Situated down range are five, 12-inch metal plates, arranged at distances from 10 to 20 yards. The buzzer sounds and the shooter's hands snake the revolver from the holster. The first shot sounds almost immediately and the following four seem almost a continuous roar. Five plates topple from their perches like dominos. The competitor empties the spent cartridge cases, re-loads and re-holsters his pistol, catches his time as he flashes on an electronic scoring screen: 3.79 seconds. From the spectators standing behind the firing line comes a polite smattering of applause, but only a smattering. For, while 3.79 seconds may seem an extraordinarily fast time to draw a pistol and hit five targets, the real experts at the game can do it in half that time.

The sport of action shooting began as a direct outgrowth of the "Fast Draw" contests popular in the late '50s, pitting celebrity shooters against one another but with a slight twist: instead of simply making a quick draw and firing a blank to stop the electronic timer, competitors were now expected to actually hit one or more targets! The sport hasn't been the same since. Action shooting today has evolved into a diversified and popular game. Rules for action shooting are rather simple: virtually any centrefire self-loading pistol, or revolver, is allowed as long as it fires a nine mm or larger round. There are few restrictions on sights, grips, length and weight. The prevailing philosophy is to let the competitors see what works best. A key requirement for holsters is that they retain the pistol securely, and safely during normal movement and a few specified physical exercises.

Action pistol shooting centres around the speed at which a competitor can hit one or more targets from a starting position in which the pistol is securely holstered. The targets may be paper targets with scoring rings, metal plates that fall when hit, or even bowling pins that must be completely removed from a table. Targets may be stationary or moving. Action courses vary, often including both scored targets and falling targets within the same match. Match directors constantly endeavor to come up with new and more challenging courses of fire, and as a result, there is no "typical" action course. Scoring is accomplished either by raw time (the exact number of seconds it takes the competitor to complete the course of fire) or by a factoring system that adds the total point value of the targets hit by the shooter on a particular stage and then divides that total by the time (in seconds) it took him to complete the course.

Equipment: Virtually all action matches begin with the loaded pistol holstered, requiring competitors to have a holster that will release the firearm quickly and smoothly, yet retain it securely during normal movement and activity. Because many matches also require the competitor to reload quickly, pouches for holding revolver speed loaders or self-loader magazines are needed. For the most part, action pistol events are dominated by self-loading centrefire pistols, due to their speed of fire and ease of re-loading. The most popular calibre choices are 9mm, .38, 45 ACP and the newer .40 S&W and 10mms. Although self-loaders are often preferred, revolvers see their fair share of use. While many of the pistols of the top competitors have been extensively smoothed and customized by master gunsmiths newcomers can fare quite well with an out of the box revolver or self-loader.

UNDERSTANDING THE BASICS

Understanding the Basics: (by Jan Ryan ACC. N.C.A.S.)

I have tried to give some insight into the why and how. If there is understanding there is learning. Obviously these explanations are biased toward my ideas and on what I have learned, much through my educational contact with other sports scientists and I may not always be in agreement with what other pistol coaches may have advised. Most of the content is from articles I've written for Focus on NSW. Use what works for you, but don't discard before you try, for at least three months.

In this small booklet I haven't covered the specifics of pistol sights (relative to the length of one's arm, ability to focus etc.) Optics and many more items that would turn this article into something that is already available via existing coaching kits, coaching manuals.

Much is from what Robert Meijer has provided to our NSW coaching knowledge over the years (I have included his 'steps') and from my AIS Diploma of Coaching studies, as well as personal experience of shooting and coaching. My own first 'coach', Hans Standl, is still relevant today.

I received my coaching from the pages of his book, but back then, we did it ourselves, hopefully this is now not the case particularly in NSW.

The KISS principle went out of the window occasionally but pistol shooters, need to know how and why and sometimes that is hard to describe. I trust this article will help you do it quicker and easier.

For psychology education any book by Brent Rushall, or the Body Mind series or Terry Orlick's In Pursuit of Excellence will help anyone and they are available from the Australian Coaching Council, Belconnen ACT. (Ring and get a catalogue forwarded).

Anyone can learn to shoot, standing on one leg, if they do it often enough and long enough, and the hardest thing a coach must do, is try and alter something you know is limiting improvement, yet appears to be working and the shooter is achieving moderate success. It is inevitable during the process of learning a new technique that scores suffer and shooters instead of giving anything new some time to work, revert to old ways that provide certain guarantees.

The second hardest thing is to recognize people are individuals and leave them alone if their technique is working well and appears to have no limitations.

Practical Pistol

Practical Pistol is unique among the various pistol-shooting disciplines.

Practical shooting is based around three equally important aspects of accuracy, power and speed. Practical Pistol competitions require Centre fire pistols of 9mm or greater calibre and uses time related scoring.

No two competitions are the same as each match is a unique blend of stages; each created especially for the match. There are no fixed distances or number of shots to be fired. Use of props and realistic scenarios keep the competition diverse and keen. Each competitor must master all aspects of shooting to be competitive, although many participate simply for the enjoyment.

To score an individual stage shooter 'solves' the problem as he sees fit, balancing his skill, speed and problem solving skills to maximize his score. After the shooter has completed the stage, his score from the targets is totalled and an accurate elapsed time is recorded. The system of scoring based on elapsed time is what really defines practical shooting. The Hit Factor (points per second) determines your placing for the stage. Being slow and accurate or very fast and inaccurate will not win the stage. It is up to the shooter to find a compromise best suited to the stage design and his ability. The winner of the stage is awarded all of the stage points available and every one else is given a proportion of the total based on their hit factor in relation to the winners hit factor. The winner of the match is the competitor with the greatest number of stage points totalled from the individual stages.

Ammunition: Most action matches require minimum power in a competitor's ammunition. The power factor is determined by multiplying the weight of the bullet by its velocity, as measured on a chronograph, and then divided by 1000. The minimum factor allowed is 120 for NRA matches and 125 for USPCA Practical Shooting. This factor is easily made by most factory 9mm and 38 Special full power loads, but not lightly loaded target rounds. USPCA/IPSC rewards shooters who use more powerful cartridges by assigning a higher point value for hits outside of the target Centre if the shooter is using a "Major" load, which reaches a 'power factor' of 175. This figure can be reached with factory 45 ACP, 357 Magnum, and the various 10mms.

History: Action shooting is a direct outgrowth of the "Fast-Draw" contests popular in the late '50s. In those events, shooters demonstrated blazing speed, but little concern was given to accuracy. Prodded by such well known gun writers as Jeff Cooper, courses of fire were developed by the old Southwest Pistol league that retained the need for speed, but also stressed accuracy and full power loads. Other organizations rose, adding their own versions of action competition and today the sport ranks as one of the most popular events in the world. Today's competitor will find a wealth of action type matches available; including some where over \$100 000 in prize money is awarded to the top finishers.

Please note that a special Commissioners permit is required for all calibrs over .380

Metallic Silhouette

The course of fire typically consists of life sized metallic silhouettes of chickens, pigs, turkeys and rams, arranged in banks of five each. For high-powered centre fire pistols, the ranges are 50 metres for chickens, 100 metres for pigs, 150 metres for turkeys, and two hundred metres for rams. For smaller calibre pistols, including .22 rimfire and air pistols, the ranges are correspondingly reduced, as is the size of the targets. A match consists of 40, 60, 80, or 120 rounds fired from the standing, prone or freestyle positions. Freestyle is the competitor's choice usually a reclined, leg-braced position. Competitors engage the targets from left to right and are allowed one shot at each target. Target shot out of sequence are scored as misses. In order for a target to be scored as a hit it must be knocked over. Targets that are merely struck, or turned on their stands, count as misses. Scores: When silhouette was first conceived it was considered an impossibility that any shooter would achieve a perfect score of 40 targets in a 40 – target match. Yet, it is now considered common for a dozen or more shooters to do so at major matches. Fortunately, at least for beginners, shooters are classified according to their ability and shoot only against shooters within their grade.

Equipment

Metallic Silhouette matches are classified according to the type of pistol used. Depending upon the type of pistol used shooters will compete in one of the following categories:

Production Revolver: Any revolver that was a catalogue item as of January 1, 1977 or before (or is a current catalogue item) and was available to the general public. Barrel length not to exceed 10 ¾ inches as manufactured and weight not to exceed 4 pounds unloaded.

Production Single Shot: Any single shot pistol (except bolt action models) that meet the above criteria.

Unlimited: Any pistol with a maximum barrel length and sight radius of 15 inches, maximum weight 4-1/2 pounds and maximum overall length not to exceed 25 inches.

Field Pistol: Production revolvers and pistols as defined by production rules. Weight not to exceed four pounds in the open sight category and 4 ½ pounds in the scoped category, with a barrel length of 10 ¾ inches, or less.

Smallbore pistol: Identical to above but must be chambered for .22 short, long or long rifle cartridge.

Air Pistol: Any air pistol not to exceed .22 calibre.

Ammunition: With the exception of smallbore and air pistol targets, which are reduced in size and weight to allow the lighter calibres to knock them over with well-placed hit, silhouette shooters require a powerful cartridge to assure knocking the heavy metal targets completely off their stands. Among revolver shooters the 357 Magnum and 44 Magnum dominate the field with 357 Magnum far in the lead. In the single shot and unlimited category, bottlenecked rifle rounds, like the 7mm/08, 308, 7mm TC/U, 7mm bench rest, and other high power cartridges are popular.

History: Metallic silhouette (or siluetas metalicas, as it was called by its original players) began as a Mexican rifle shooting game where live animals were used as targets. Discovered by American shooters, it was brought north of the border in the early '70s, with live animals

being replaced with steel plate silhouettes. The sport flourished as a rifle game until John Adams reduced the ranges and began potting away at the targets with a pistol. Adams was instrumental in founding the International Handgun Metallic Silhouette association; Inc. (IHMSA) and the sport became one of the fastest growing pistol events in the United States. Many pistol manufacturers began turning out pistols specifically designed for this demanding long-range game. In fact, the lessons learned by IHMSA competitors directly resulted in the pistols and cartridges becoming available to the shooter that far exceeded, in accuracy and power, anything previously available.

Perfect Aggregate generally taken as a score out of 40, although the 80 shot matches are gaining popularity.

It should be noted that any pistol with a caliber of greater than .380 requires a special commissioners permit

I.R.F. (International Rapid Fire)

The I.R.F. match is similar to the Rapid Fire (I.S.S.F.) Match but consists of only 30 shots with a possible perfect score of 300.

No malfunctions are allowable and the match is shot with "Centrefire" pistols, which may be supported by the non-shooting hand.

No revolver cylinders may be loaded or magazines inserted into self-loading pistols prior to the "LOAD" command being given by the range officer.

Sufficient magazines to shoot the match may however be loaded with ammunition and placed on the bench once the "Preparation Time" command has been given and prior to "Load".

The targets are the old 'oval' Rapid-Fire targets, with each shooter having 5 targets, numbered 1 to 5 (left to right) to fire at. The 10 ring is 10cm wide by 20 cm high, with the entire target scoring out to the 6 ring, and measures 45cm wide by 80cm high.

Course of Fire: Two five-shot series each of eight seconds, two series each of six seconds and two series each of four seconds comprise the match. The Pistols are then "cleared to be removed" by the range officer, competitors then box or secure their pistols (and magazines) and the match is scored.