

INTERNATIONAL PRACTICAL SHOOTING CONFEDERATION



INTERNATIONAL RANGE OFFICERS ASSOCIATION

RANGE OFFICER MANUAL

International Range Officers Association

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CHAPTER 1: INTRODUCTION

- 1.1. **Background.** Range Officers are the backbone of practical shooting. The best Range Officers are dedicated, enthusiastic and knowledgeable people. They are absolutely essential to the success of any match or tournament. They provide consistency and safety in all IPSC competitions. For this reason IPSC supports IROA as well as the national Range Officer institutions (NROI).
- 1.2. **Desire.** In IPSC it is very easy just to simply shoot and let others do the work. Those who decide to do more than just shoot often become Range Officers. They wish to give back some of the enjoyment of shooting by helping to make shooting enjoyable. The goal is safe and efficiently run competitions. The better the officials the better the match. As Range Officers we strive to be the best: "The Best of the Best".

Objectives of this manual

- 1.3. **The Manual.** This Manual is intended to provide the trainee Range Officer with the background essential to understanding what the Range Officer does on the range and why. It does not replace the IPSC Competition Rules of which the Range Officer must have a thorough knowledge. The IPSC Competition Rules are the basis for our sport and must be studied intensively. The Range Officer Manual is intended to serve as a guide to:
 - 1.3.1. Regions far from the established centres that do not have an "old hand" to guide them,
 - 1.3.2. trainee Range Officers during their training period, and
 - 1.3.3. all IPSC members for general guidelines.

This Manual is available to all members of IPSC.

- 1.4. **Practical Nature.** It is emphasised that Range Officer training is essentially learning to apply the IPSC Competition Rules in practice. Many aspects and facets thereof cannot be covered in a written course or in a lecture room.
- 1.5. It is accordingly not claimed that the contents of this Manual are exhaustive or that it covers all aspects of the knowledge required of a Range Officer. Being a good Range Officer is a lifelong journey of learning.

Range Officer Qualities

- 1.6. **Range Officer Qualities.** Desire, good attitude, knowledge, objectivity and common sense are the qualities of a good Range Officer.
- 1.7. **Desire.** You must really want to become a Range Officer. If you don't have the time or inclination, don't do it. To be a good Range Officer can be very rewarding but is hard work.
- 1.8. **Attitude.** The Range Officer must always have a good attitude. If you lose your temper or become irritated quickly, think again before applying to become a Range Officer.
- 1.9. **Knowledge.** The Range Officer must have an above average knowledge of the IPSC Competition Rules, knowledge of firearms and good communication skills.
- 1.10. **Objectivity.** Range Officers treat all competitors the same – firmly and fair. They never allow the smallest perception of favouritism. They are consistently calm, confident and efficient. They never ever intimidate the competitor and are not intimidated by the competitor.

- 1.11. **Common Sense.** Many situations that a Range Officer will be faced with on the shooting range during matches are not covered clearly in the IPSC Competition Rules. It is then that he needs common sense in applying the Rules in that specific situation.

Duties of a Range Officer

- 1.12. **Competitor Action.** Range Officers are in charge of competitor action. They brief all competitors on the requirements of the particular stage and answer questions to clarify any misinterpretations of the course designer's intention.
- 1.13. **Patience.** The competitors should see Range Officers as part of the solution and not part of the problem, we are not there to punish. To this end a little patience and understanding helps. Not all competitors will approach the problem posed by the course of fire in the same way, therefore it is important that the Range Officer listens to the competitors as much as he/she may want the competitors to listen to him.
- 1.14. **Control.** Once the Range Officer is ready to start a squad he must take control and maintain control throughout. This includes spectators.
- 1.15. **Safety.** Safety is of prime importance in our sport and overrides all other considerations. Any safety infringement is dealt with in terms of the IPSC Competition Rules.
- 1.16. **Impartial.** A Range Officer is impartial. Always maintain the same standard throughout a match. This is especially important when it comes to scoring targets. Remember if the competitor did not earn the higher points don't give it just to avoid some unpleasantness. Most competitors will want to get the best possible result but will accept the decision of the Range Officer. You score only what you see, not what is supposed to be there.
- 1.17. **Similar Conditions.** Each competitor must be given the same conditions in which to compete. That means if a plate must be painted or a target must be changed to give each competitor an equal opportunity, do it or get someone to do it.
- 1.18. **Range Equipment.** Remember, you are representing the host organisation on that range and have certain responsibilities. For example, it is the host organisation's responsibility (Range Master) to calibrate poppers and to check that the range equipment functions properly (Match Director). Where this is not always possible, check that the popper will go down when hit properly and the equipment functions correctly. This saves time by avoiding range equipment failure and the resulting re-shoots. You are co-responsible to take care of the range and the range equipment for the time that you are in charge of that stage.

Range Officer Appearance

- 1.19. **Dress.** IROA Range Officers will primarily be identified by the shirt and cap they wear. Full detail of the IROA Range Officer dress is in the Member Handbook. Each NROI will have its own distinctive dress.
- 1.20. **Appearance.** Range Officers may secondly be identified by their neat and well-dressed appearance. Clothes and footwear will always be clean and in good repair. No unshaven appearance.
- 1.21. **Footwear.** A Range Officer is on his feet most of the day and it must be borne in mind that he will be running behind competitors and be expected to keep up. Comfortable running shoes with sufficient "tread" are recommended. Socks will be worn. Sandals will only be worn if the range is on the beach next to the sea.

Range Office Equipment

- 1.22. **Personal Equipment.** A Range Officer should have the following on the range with him as standard part of his own equipment:

- 1.22.1. Copy of the stage/course of fire.
- 1.22.2. Clipboard and pen and pencil[for wet weather].
- 1.22.3. IPSC Competition Rules - handgun, rifle, mini rifle, shotgun or Action Air as applicable.
- 1.22.4. Scoring overlays.
- 1.22.5. Timer.
- 1.22.6. Staple gun.
- 1.22.7. Water/liquid to prevent dehydration.
- 1.22.8. Sunblock/sunscreen.
- 1.22.9. Mosquito repellent.
- 1.22.10. Cold and/or wet weather clothing.
- 1.22.11. Light snack to maintain blood sugar levels.
- 1.22.12. Roll of patches/paint for plates, supplied by match organisers.
- 1.22.13. Pliers/multitool.
- 1.22.14. Forms: Arbitration Request, Disqualification Report, supplied by match organisers.

Trainee Range Officers

- 1.23. **Competency.** The Range Officer assessment is intended to establish whether the candidate is competent to assume the responsibilities of a Range Officer, an expert in a specialised field in a practical and much faceted sport that is still continuously developing.
- 1.24. **Attitude.** Past experience has shown that even though a candidate may have extensive knowledge gained from many months or even years on a range, this is not sufficient. He must think as a Range Officer, as opposed to thinking like a competitor. This capability cannot be taught, it comes from experience.
- 1.25. **Experience.** At the same time it is necessary that the Range Officer have general background experience and knowledge that by its very nature cannot be included in a Manual like this.
- 1.26. **Knowledge.** It is essential that the candidate be familiar with the contents of this Manual and does not merely browse through it. This is not without reason. It must be accepted that to a greater or lesser extent the whole sport revolves around the Range Officer and this naturally entails responsibility. Just as the competitor who does not put in real effort to practice remains mediocre, so the Range Officer who is not prepared to put in time and effort will be a mediocre one, and he would be doing himself and the sport a favour were he rather to stay out of officiating.
- 1.27. **Pass Mark.** Overriding all other considerations is the fact that slackness in safety can absolutely not be accepted. It will, therefore, be appreciated that a high pass mark is called for in both the practical and theoretical assessments.

CHAPTER 2: QUALIFYING AS A RANGE OFFICER

Procedure for Appointment and Qualification as Range Officer

- 2.1. **Selection of Candidates.** Each Region must arrange that suitable individuals receive training as Range Officers. The NROI concerned is to assist their clubs in every way in the training of the nominated individuals and conduct training courses for the potential Range Officers. During this time these individuals can be considered as ‘Range Safety Officers’.
- 2.2. **Evaluate Candidates.** Regional associations and their clubs are urged not to nominate a person as trainee Range Officer who does not have the minimum attributes. It must be stressed that qualifying as a Range Officer entails more than just simply knowing this Manual and the IPSC Competition Rules by heart and being able to pass written examinations. If a verbatim knowledge of these notes and the IPSC Competition Rules were all that was required, a non-competitor who had never been on a range would be able to pick up this Manual and the IPSC Competition Rules, and become a qualified Range Officer with a little study, something that certainly would not be to the advantage of the sport. It is for this reason that the appointment of a Range Officer takes time. Many people start with the best intentions, but realise that to succeed requires a commitment greater than they are able or willing to make.

National Range Officer Institute [NROI]

- 2.3. **National Range Officer Institute.** All Regions should have a Range Officer association [NROI]. The NROI carries out the following activities:
 - 2.3.1. Conducts Range Officer training in accordance with international standards.
 - 2.3.2. Certifies national Range Officers.
 - 2.3.3. Advises the Regional Director on aspects relating to the safe conduct of IPSC competitions.
 - 2.3.4. Advises the Regional Director on rules of competition.
 - 2.3.5. Maintains a register of all national Match Officials.
 - 2.3.6. Manages the national Match Official maintenance programme.
- 2.4. **NROI Start-up.** Should the Region not have such a body, the Region may approach IPSC for assistance. IROA will, in conjunction with the Regional executive, assist such a Region as indicated below.

IROA Recommendations for NROI Programs

- 2.5. **New Region and/or NROI.** A new Region has to have its own NROI to be able to host IPSC matches at all levels. The recommended procedure is set out below.
 - 2.5.1. The organisation is customarily named the National Range Officers Institute (examples: NROI Canada, GROI in Germany, SAIRO in South Africa, etc.).
 - 2.5.2. The Regional Director usually appoints the President or Chairman of the NROI.
 - 2.5.3. The organisation creates its own identifying logo and colours. The IROA shield and scales may be used but the actual IROA logo or clothing may not be used.
 - 2.5.4. The funding for the operation of the NROI usually comes through the Regional Director.

- 2.6. **NROI Range Officer Training.** The NROI is responsible for the training of national Range Officers in accordance with international training standards. IROA has developed a Range Officer training seminar that is designed for the training of national Range Officers. This material is available from IROA free of charge to all Regions.
- 2.7. **NROI Range Officer Qualifications and Rank**
- 2.7.1. **Range Officer** qualifications for NROI accreditation
- Must be a current member of IPSC.
 - Must successfully complete a Level I Seminar.
 - Must earn 15 supervised Match Points (work in IPSC matches under supervision of a certified IPSC Match Official).
- 2.7.2. **Chief Range Officer** qualifications for NROI accreditation
- Must be a current member of IPSC.
 - Must be a certified IPSC Range Officer.
 - Must be recommended in writing by a certified Chief Range Officer or Regional Director.
 - Must have a minimum of 28 (total accumulated) match points, of which 15 must be at Level III matches.
- 2.7.3. **Range Master** qualifications for NROI accreditation
- Must be a current member of IPSC.
 - Must be a certified IPSC Chief Range Officer.
 - Must be recommended in writing by a Certified Range Master or Regional Director.
 - Must have a minimum of 55 (total accumulated) match points of which 15 as CRO/RM at Level III or higher matches.
- 2.7.4. **NROI Annual Maintenance of Certification.** All NROI Officials should require six match points per year to maintain their accreditation
- 2.7.5. **Match Points** are awarded as follows:
- Level I match.....1 point
 - Level II match.....2 points
 - Level III match.....3 points
 - Level IV match.....4 points
 - Level V match.....5 points
- Any official not attaining their required maintenance match points for the calendar year may re-certify for the next year, at their level, by attaining 3 supervised match points.

Range Officer Attributes

- 2.8. **Range Officer Attributes.** It must be accepted that not all competitors are suitable material for Range Officers. A candidate must have at least the following attributes.
- 2.8.1. Leadership in an "aggressive" sport where the weak and timid are not often found.
- 2.8.2. Experience as a competitor in the sport.
- 2.8.3. Reasonable knowledge of firearms and some of ballistics, the latter because a Range Officer is required in terms of the IPSC Competition Rules Chapter 5 to be able to identify unsafe ammunition.

- 2.8.4. The ability and willingness to convey knowledge to others, who are going to use that knowledge as his opponents in matches - thereby creating his own competition.
- 2.8.5. Safety-consciousness and particularly the ability to foresee when a safety problem may arise.
- 2.8.6. Willingness to make the sacrifice as an active participant not only to put in the additional time and effort required to be a Range Officer but also to accept that this may be to the detriment of his own shooting.
- 2.8.7. The ability to handle "difficult" situations firmly and yet diplomatically, the latter perhaps with the qualification "if possible" ... safety comes first.
- 2.9. **Desire.** Before we go any further, the first step should be the candidates ***desire*** to become a Range Officer. Past experience has shown that other reasons such as being "nominated" or any such reason where peer pressure is used to "motivate" the prospective candidate, usually results in an unmotivated Range Officer within a short period of time.

Requirements for Trainee

- 2.10. **Age.** There is no maximum age for a Range Officer. The minimum age will depend on the legal requirements of the Region.
- 2.11. **Recommendation.** The club or association recommends a person of suitable potential to the NROI as trainee Range Officer. In this way there is a process of screening of candidates.
- 2.12. **Shooting Experience.** It is recommended that the candidate participate in at least three Level II matches before applying for Range Officer training.
- 2.13. **Supervised Activities.** After being accepted by the NROI, he then serves under supervision for at least three Level II matches after first taking a shortened and or verbal examination of the IPSC Competition Rules. During this supervised period he attends level II matches in his capacity as trainee Range Officer, where he will run stages under supervision of qualified Range Officers. During this period a dual selection process is taking place. On the one hand the competitors and NROI decide if they want and will accept the trainee Range Officer and on the other if the trainee will accept the demands that officiating will make on him with respect to time, effort, personal sacrifices, etc.
- 2.14. **Assessment.** After accumulating at least 6 supervised match points
 - 2.14.1. he attends a Range Officer course conducted by the NROI, which is concluded with a written assessment for which the pass mark is 75%, and
 - 2.14.2. is examined in the practical aspects by a Chief Range Officer on the range during a level II match.

The Regional NROI then advises the Regional association if the candidate is found to be competent.
- 2.15. The new Range Officer is then placed on the Region's register of qualified Range Officers and is issued with a certificate, insignia, apparel, etc as appropriate to the Region.

International Range Officer's Association (IROA)

- 2.16. IROA match officials are often found at Level III and always at Level IV and V matches and tournaments. Range Officers have to meet certain requirements to be appointed as and remain IROA match officials. This is available on the IPSC website and from the IROA Member Handbook and will not be repeated here.

CHAPTER 3: THE RANGE OFFICER'S DUTIES

- 3.1. **Categories.** The duties of the Range Officer may be broadly divided into four categories:
 - 3.1.1. Primary safety.
 - 3.1.2. The running of a stage as a Range Officer.
 - 3.1.3. Providing a firm foundation for the sport as part of the club or association that he belongs to.
 - 3.1.4. To assist in the advancement of the sport.
- 3.2. **Applying the Rules.** At all times remember that Range Officers only apply the Rules, they never interpret them. Interpretation is done by the IPSC Executive Council.
- 3.3. **Image and Attitude.** Before getting into specifics let's take time to consider the following. As a Range Officer, you are a key element in your Region's safety plan. Your actions will help to shape the future of the sport and to the competitors YOU represent your NROI and IPSC. That is why we are concerned about:
 - 3.3.1. **Image.** As a Range Officer you are invested with considerable responsibility and authority. How you handle your task shapes the image of our sport. The impression you make must be a positive one.
 - 3.3.2. **Attitude.** Practical Shooting is a sport that challenges you to develop self-control. You need it to control and integrate body and mind when you are shooting. You need it as a Range Officer when you are interacting with a competitor.
- 3.4. **Professional Attitude.** To be a successful Range Officer you need to develop a professional attitude. You convey this by your body language and handling of the competitor on the stage you are allocated to:
 - 3.4.1. You are CALM ... Because you know the IPSC Competition Rules and how to run a stage.
 - 3.4.2. You are COURTEOUS... All competitors are treated with the same calm and courteous manner, despite any possible emotional outbursts on their part.
 - 3.4.3. You are in COMMAND... When people of various skill levels are moving about on a range with loaded firearms, someone has to be in command. We expect the competitor to be in **control** of his firearm and himself. You are in **command** of the stage, the competitor and the action.
 - 3.4.4. You are THINKING AHEAD... You are thinking SAFETY and are alert to prevent potential safety problems BEFORE they can occur.
 - 3.4.5. You are KNOWLEDGEABLE... about the IPSC Competition Rules and principles of the sport, about firearms and about your job.
 - 3.4.6. You are OBJECTIVE... There is never a whisper of favouritism concerning your actions. Each competitor is treated with the same impartial courtesy.
 - 3.4.7. **YOUR TASK...** You are responsible for seeing that the course of fire is run fairly and consistently. In order to do that, your instructions must be **CLEAR, TO THE POINT AND EXACTLY THE SAME FOR EACH GROUP OF COMPETITORS.**

YOUR GOALS... PROFESSIONALISM - SAFETY - OBJECTIVITY - SAFETY - FAIRNESS - SAFETY - CONSISTENCY - SAFETY - KNOWLEDGE - SAFETY - CONFIDENCE – SAFETY

- 3.5. **Range Officer's Creed.** All the above is brought together in one easily understood document known as the IPSC Range Officer's Creed, attached as Appendix A to this Chapter. Read this often as it embodies all that a Range Officer must strive to be.

Primary Duty - Safety

- 3.6. It is reiterated that **the Range Officer's primary duty is to control competitor behaviour and secondly to control the range in a manner that provides for the safety of competitors and spectators at all times.**
- 3.7. Safety before diplomacy! However, this does not excuse bad manners!
- 3.8. Fortunately the Range Officer does not normally have much argument about his decisions on safety infringements. He should, however, strive to build a reputation that he does not tolerate any Rule infringement, at all times being consistent in his actions and decisions, particularly in safety matters.
- 3.9. Minor Infringements. Once you allow a minor infringement to go by unchecked you have set a precedent. The tendency of the competitors will be to chance their luck until you draw the line. When you do this, you are not doing it from a position of strength as you are hampered by the precedent you have set.
- 3.10. A particular word of warning about "the person in authority". A junior Range Officer is sometimes reluctant to react to safety infringements of, for example, his senior Range Officer, team member, "A" grade competitor, chairman, etc. He should be consistent in decisions to all competitors, including these examples. Other competitors will notice any leniency and you will lose your credibility.
- 3.11. It is also stressed that as far as the infringement of safety rules is concerned, the Range Officer has no discretion but **MUST** disqualify the transgressor.

The Running of a Stage as a Range Officer

- 3.12. Setting aside the design of the course, the manner in which the Range Officer handles the running of a stage is a significant factor in deciding whether the stage or match is a success or a failure. Further to taking a general responsibility for safety matters, the Range Officer issues range commands, oversees competitor compliance with the written stage briefing and closely monitors safe competitor action. He also declares the time, scores and penalties achieved by each competitor and verifies that these are correctly recorded on the competitor's score sheet. In addition a Range Officer should contribute to the enjoyment of competitors and spectators alike.
- 3.13. He takes control of the stage and maintains that control. If he loses control the match could suffer and detract from the competitor's enjoyment. This control, in the broad sense, is what is later referred to as range discipline.
- 3.14. **Penalties.** The Range Officer's primary purpose is **not** to see how many penalties he can award against a competitor. The principles underlying the allocation of penalties are clearly defined in the IPSC Competition Rules and the Range Officer should only apply these principles. Do not be petty.
- 3.15. **Range Officer Actions at the Stage.** The following guidelines may be applied to allow a stage to be conducted harmoniously: [see Rule 3.2]
- 3.15.1. Read the written stage briefing to the competitors clearly and concisely. Invite questions.
- 3.15.2. Explain the scoring method and penalties. The competitor must be able to work out from this what category of shoot it is and how he should approach it.

- 3.15.3. Indicate to competitors the firing points clearly if penalties are attached to overrunning or overstepping a fixed firing point.
 - 3.15.4. Indicate the targets and particularly no-shoot targets.
 - 3.15.5. Place yourself so that competitors can hear your commands clearly.
 - 3.15.6. Advise competitors to check their scores and times, if at all possible, while they can still raise a question if they wish to.
 - 3.15.7. Treat all competitors equally and impartially, irrespective of personal knowledge of them and/or their range manners, or your personal feelings towards them. As officials, we must not only be fair, but we must be seen to be fair.
- 3.16. **Infringement of the Rules.** If there is an infringement of the Rules, the competitor must be so informed:
- 3.16.1. In a pleasant manner, and
 - 3.16.2. if the infringement is serious, the Range Officer should warn or disqualify the competitor immediately, as appropriate.
 - 3.16.3. Be courteous and friendly; you need not be a bully to be strict.
 - 3.16.4. When taking an individual competitor under command, try to establish rapport and set him at ease; endeavour to establish the attitude that you are working together, NOT that you are going to try to catch him out.
 - 3.16.5. Above all, be strict but fair.

APPENDIX A TO CHAPTER 3

IPSC Range Officer's Creed

As an IPSC Range Officer, I shall conduct all competitions with the safety of the competitors, spectators and fellow Match Officials first and foremost in my thoughts and actions. I shall always be courteous while maintaining firm control over my range and areas of responsibility. I will always strive to be totally fair and impartial in my judgements.

1. **Safety shall always be my primary goal**, with efficiency and speed of the competition as secondary factors.
2. **It is a privilege and an honour to serve as a Range Officer** and I shall act accordingly.
3. **It is my duty to assist all competitors** in their attempts to accomplish their goals and not to hinder them by undue harassment and authoritarian behaviour.
4. **I shall put aside personal prejudices** and act as an impartial judge at all times.
5. **I shall keep my opinions to myself** and shall not be critical of any individual beyond the field of contest.
6. **I will thoroughly familiarize myself with all current regulations**, match rules and attendant subjects.
7. **I will be firm and fair** in all judgemental calls made during the course of a stage, and be prepared to state in a clear and concise manner my reasons for such calls to the particular competitor or any Match Official.
8. During the course of a stage, **my attention shall be clearly focused on the particular competitor** I am assigned to observe, and I shall not permit my attention to be misdirected or lax.
9. Prior to and during a stage, **I shall never consume any alcoholic beverage or narcotic**. I understand that if I violate this rule, I may be suspended or barred from serving as a Match Official in the future.
10. **I shall confer only with my fellow Range Officers** and Match Officials concerning the behaviour of any competitor and any decisions to be rendered.
11. **I shall exercise due consideration for the personal emotions of any competitor**, and shall act in a manner so as not to embarrass or disturb the competitor any more than is absolutely necessary.
12. **I shall strive to never give even the appearance of wrongdoing.**

CHAPTER 4: THE RANGE OFFICER'S AUTHORITY

General

- 7.1.1 *Range Officer (“RO”)* – Issues range commands, oversees competitor compliance with the written stage briefing and closely monitors safe competitor action. He also declares the time, scores and penalties achieved by each competitor and verifies that these are correctly recorded on the competitor's score sheet (under the authority of a Chief Range Officer and Range Master).
- 4.1. **Authority.** It is generally accepted that the Range Officer has complete authority on the range. As imposing as it may sound, this may be meaningless if the Range Officer does not act accordingly.
- 4.2. **Popularity.** The Range Officer is not on the range to win a popularity contest and it is inevitable that his decisions will from time to time be unpopular. This does not excuse bad manners.
- 4.3. **Range Discipline.** Range discipline is essential and it is something that is only built up over a period of time by the consistent conduct of the Range Officer in bringing meaning to the words the Range Officer has complete authority on the range.
- 4.3.1. By the very nature of his duties and of the sport the Range Officer must apply his discretion in many instances and he should not be afraid to do so, provided it is done fairly and impartially.
- 4.3.2. If he does not do so it would simply mean that the Range Officer has no authority on the range whatsoever.
- 4.4. The Range Officer is in no different position to the referee or umpire in any other sport in the sense that he is human, as such fallible, and may make a wrong decision, but he is judged on his overall "performance" and not by single instances.
- 4.5. Competitors should know that the Range Officer makes a decision based on what he sees and that he applies the IPSC Competition Rules fairly and consistently. Competitors can appeal and the decision can be reversed.
- 4.6. The acceptance of the Range Officer's authority starts at club level and works up. A weak Range Officer in a club, with whom anyone can argue (even if it is with his tongue in his cheek) and get away with, is likely to allow the same on higher levels of competition.
- 4.7. **Interests of the Sport.** If the Range Officer awarded a penalty to a competitor for a minor procedural error from which he gained no real advantage and disqualified a second competitor who deliberately tried to exploit a previous decision of the Range Officer, to the extent of not only gaining a major and unfair advantage but completely negating the designer's intention, the Range Officer would have been acting in the interest of the sport, although harshly.
- 4.8. This does not imply that the Range Officer may apply and exercise his discretion unfettered by any discipline or control. But it is NOT for the individual competitor to dispute the Range Officer's ruling with a view to altering his own or, as is more often the case, some other competitor's score. The word "sportsmanship" has some meaning in this sport too.
- 4.9. It is not to say that a competitor may not enquire about and discuss a penalty awarded against him with his Range Officer before he leaves the line. The Range Officer should have an open mind to the competitor's point of view but it is then for him to make his decision and motivate it briefly to the competitor, mentioning the relevant Rule and the specific part of the briefing. He should not permit further haggling or argument after that.

- 4.10. However, if the Range Officer cannot motivate his ruling and has to hide behind the answer: "I am the Range Officer and what I say goes" or "because I said so" it is reasonably certain that his decision was an arbitrary and undefendable one.

The Range Officer's Authority

- 4.11. **Control over the Range Officer.** The fact that the Range Officer's decision is final as far as the competitor is concerned does not, however, mean that the Range Officer is a law unto himself and can do just what he likes. The Range Officer is subject to the control of and even, if need be, disciplinary action by authorities above him, immediately the Area Chief Range Officer, then the match Range Master and then up to the Regional association if NROI, or IROA if an IROA official. The Rules are very clear on this.
- 4.12. **Right and Duty.** The best control is self-control, sound common sense and good judgement. It should be borne in mind that the counterpart of a right is a duty and the greater the right, the greater the duty. The more power you are given, the greater the discretion with which you should employ these powers. Needless to say, a Range Officer with these more-or-less unlimited powers who is inclined to think and act like a dictator does the sport no good. The Range Officer must appreciate that where on the one hand he has the right to act with wide discretion, there is a corresponding duty on him to not abuse this right.
- 4.13. The Range Officer in IPSC is in the unique position that as much as the activities at matches need to be controlled strictly, perhaps more than most other amateur sports, the
- 4.13.1. Range Officer is invested with more powers than his counterpart in other sports, and
 - 4.13.2. safety and discipline on the range is structured to uphold the authority of the Range Officer.
- 4.14. **Knowledge of the Rules.** The Range Officer himself is as much subject to the Rules as are the competitors, with the difference that it is accepted that he knows them. Just as it would be an utter shambles if in say a football match the referee started applying the rules of tennis, our sport would be in shambles if every Range Officer started applying different rules or his own interpretation of what he thinks the rule should be. The Range Officer has to make his decisions in accordance with the Rules. A ruling which is clearly incorrect not only makes the Range Officer in question look stupid but is an embarrassment all round, as
- 4.14.1. the competitor justifiably objects and wants the ruling reversed,
 - 4.14.2. the organised sport is in a dilemma, for
 - 4.14.2.1. on the one hand, and in order to maintain discipline, the door cannot be opened for reversal of Range Officer decisions for just any reason, but
 - 4.14.2.2. on the other hand, fairness obviously calls for the aggrieved competitor to be compensated.
- 4.15. **Criteria for Decisions.** The Range Officer **must** therefore know the Rules and apply them! Note that the Range Officer only applies the Rules and does not interpret them. But further than this, all decisions made by the Range Officer have to meet certain requirements. These are:
- 4.15.1. He must not have acted with ulterior motives or male fide e.g. when there is perhaps some doubt, penalise a competitor simply because he does not like him or because the Range Officer's sympathy lies with another team.
 - 4.15.2. He must, in a matter where he has discretion, actively apply his mind to the alternatives. He cannot simply take the easy way out and decide on the first alternative that comes to mind, (an "exception" to this is matters relating to safety when the Range Officer has to act **immediately** and **without hesitation**). This is why he has to know the Rules and apply the correct one.

- 4.15.3. His decision must not lead to grossly unfair results. Unreasonableness on its own is often difficult to establish unless it is so gross that either ulterior motives or a lack of application of his mind to the problem becomes apparent. Competitors will soon realise if the Range Officer becomes unnecessarily dictatorial and unreasonable, he will find himself in the position that even his better decisions become suspect in the minds of others.
- 4.15.4. He must, in case of a dispute, afford the competitor an opportunity to present his side of the story. This may, particularly in instances where safety is involved, not be possible **before** the Range Officer makes his decision and acts, in which case it should be done at the first opportune moment. If the Range Officer is then persuaded that his decision was wrong, be big enough to admit it and rectify the matter as best he can under the circumstances.
- 4.15.5. A Range Officer in charge of a stage is exactly that, he is in command irrespective of his status.
- 4.16. So far we have dealt only with the Range Officer. The competitor may go to arbitration on any ruling except scoring where the Range Master has the final say.
- 4.17. Finally, those Range Officers who do not visibly demonstrate the quality of a Range Officer as reflected in this Manual will rarely be promoted or allowed to officiate independently at major matches.

CHAPTER 5: SAFETY RULES AND PROCEDURES

Safety Rules in General

- 5.1. The safety rules the Range Officer works to are the foundation on which he builds further to discharge his primary duty, namely safety at all times. The basis of safety in IPSC lies in the Range Officer applying the IPSC Competition Rules diligently, constantly, conscientiously and consistently. A thorough knowledge of the Rules is essential for all Range Officers. Safety rules fall into four categories, namely the three commandments, primary safety rules, regulative safety rules and local safety rules. In addition the IPSC Competition Rules contain general and specific procedures that support and maintain safety.
- 5.2. **Three Commandments.** The three basic, capital rules, which may be called the three commandments, contravention of which leads not only to disqualification of but also to disciplinary action against the transgressor:
 - 5.2.1. The Range Officer has complete authority on the range.
 - 5.2.2. Only point a firearm at that which you wish to see destroyed.
 - 5.2.3. No firearm may be handled except on the firing line and on the command of the Range Officer, the exception being a designated safety area.
- 5.3. **Primary Safety Rules.** The "Three Commandments" are supplemented with a number of primary safety rules contained in the IPSC Competition Rules, the contravention of which leads to match disqualification without discretion on the part of the Range Officer, such as the following:
 - 5.3.1. Allowing the muzzle of the firearm to point at any part of the competitor's body.
 - 5.3.2. Dropping a firearm during a course of fire, or during loading, unloading or reloading, whether loaded or not.
 - 5.3.3. Being under the influence of liquor or drugs on the range.
- See Rule 10.5 of the IPSC Competition Rules for detail.
- 5.4. **Regulative Safety Rules.** There are usually a number of regulative safety rules, some of which are obviously always applicable and some that are designed purely as the occasion demands, e.g. at a shotgun match shotguns must be placed in racks until called to the line, etc.
- 5.5. **Local Safety Rules.** Each club is free to formulate its own safety rules provided they are accepted and approved by the Regional Director. This usually has to do with local conditions prescribing safety. However, the club rules must meet IPSC Competition Rules to be able to host IPSC matches. It follows that visitors to a club may work to different local rules, and novices may be completely unfamiliar with safety rules. The Range Officer should, therefore, inform all competitors of the local safety rules - do not take anything for granted.
- 5.6. **IPSC Competition Rules.** The IPSC Competition Rules were designed to fit any level of competition, where you have to cope with a number of competitors from different clubs, associations, Regions, countries and languages. It is essential that each Range Officer shall know the IPSC Competition Rules and coach any new member who will be attending a match.

Safety Procedures on the Range

- 5.7. **Range Commands.** Do not deviate from the wordings and use of recognised IPSC range commands in English. **USE ONLY THEM AND DO NOT ADD TO OR TAKE AWAY ANYTHING FROM THEM.**

5.8. Safety on the Firing Line

- 5.8.1. In all cases when the competitor presents his firearm after the command "unload and show clear" look into the chamber and magazine well to check that they are both empty. At this stage the competitor is still under your command and it is your responsibility to check that when he leaves the stage his firearm is in a safe condition. This responsibility ends when you declare his firearm clear and he takes responsibility [if clear, hammer down, holster], and subsequently the range clear.
 - 5.8.2. When dealing with a squad on the line (multiple competitors, common firing line), it is good policy in the case where firearms are carried loaded, to have the competitors on the line turn and face the Range Officer once they have holstered. This will make visual inspection easier, especially when the squad is required to move to another firing line. This also has the added advantage that competitors who are wearing ear protection can see you, and you can see that they are paying attention during the briefing.
 - 5.8.3. Once they are off the line and no longer under the direct surveillance of the Range Officer, competitors are tempted to fiddle with firearms. Bear in mind that, however strict range discipline may be, it is something that may still occur and is an aspect to which the Range Officer should be alert.
 - 5.8.4. Safety areas must be set up to allow competitors to not only bag and unbag, but also for inspecting or working on firearms. Clubs must set up safety areas for all matches; this will contribute to preventing the problem mentioned above. It is good policy to have the rules governing the safety areas displayed in these areas.
- 5.9. **Check.** The Range Officer should automatically check that
- 5.9.1. the range is clear, and
 - 5.9.2. non-competitors are safely behind the firing line before giving the command to load and make ready. It should be second nature.

Safety on the Line

- 5.10. **View of the Competitors.** The Range Officer should always stand in such a position that he has a clear view of all competitors in the squad on his stage.
- 5.11. **Large Squads.** A Range Officer cannot control and supervise a large squad [common firing line] on his own. He should
 - 5.11.1. make use of sufficient assistant Range Officers so that there is a Range Officer watching each three/four competitors at most, and
 - 5.11.2. not attempt to operate a manual timing system as well as watching the line, and
 - 5.11.3. not give the command to load before he has passed to the back of the line.
- 5.12. **Jammed Firearm.** Pay close attention to a competitor clearing a jammed firearm. The competitor very often tends to point the firearm to his weak side, either down the line or at his own body. This naturally also applies on any other courses, but in that case there should not be anybody near where he may point the firearm.
- 5.13. Exercises with a potential safety problem must be strictly controlled.
- 5.14. Caution should also be exercised when a squad that is shooting on a common firing line is interrupted.

Safety During the Course of Fire

- 5.15. **Course of Fire Safety.** Before proceeding with any course of fire, the Range Officer must satisfy himself that it is a safe course, both in design and as it has been set up. He should walk the course specifically to determine that
- 5.15.1. the angle of fire from all points is safe,
 - 5.15.2. any point at which a possible accidental shot may be fired (e.g. over barricade, in a tunnel, etc.) is angled in such a manner that no harm can be done by a stray shot.
- If he is not satisfied, he must take it up with the Range Master immediately. Do not change anything on your own, it may result in several squads having to reshoot because you changed the course of fire.
- 5.16. **Movement.** A competitor on the move
- 5.16.1. should in the case of a semi-auto, have the safety on and in the case of a revolver, have the hammer down, and
 - 5.16.2. **must** have his finger out of the trigger guard, when moving from one shooting station, area or position to the next.
- 5.17. **View of Course of Fire.** The Range Officer must pay particular attention in any course of fire where he cannot see the entire course from the starting position. Care must be taken that patchers and scorers are out of the shooting bay before the next competitor is started. It is recommended that
- 5.17.1. a constant and fixed number of persons is used throughout the stage (e.g. scorer and 2 patchers)
 - 5.17.2. a head count is done each time before a competitor is taken under command.
 - 5.17.3. individual patchers and scorers are not replaced without the permission of the Range Officer, and
 - 5.17.4. that a ‘safety officer’ is in position with the specific duty to check that:
 - 5.17.4.1. the previous competitor is out, and
 - 5.17.4.2. nobody wanders into the course at any time (for instance to check a buddy’s score).
 - 5.17.5. the Range Officer remains behind until the last competitor or patcher has finished and walks back to the starting position with all the competitors, etc in front of him.

IPSC Competition Rules

- 5.18. The IPSC Competition Rules form the basis of the sport and this Manual must be seen as amplifying the application of the Rules for the Range Officer. Only the newest version of the Rules is used in any match or Grand Tournament at all levels of practical shooting. The Rules are available from the IPSC website www.ipsc.org for the price of downloading and printing them.
- 5.19. It is expected of all Range Officers and trainee Range Officers that they will be very familiar with the IPSC Competition Rules and keep them **themselves** updated with the changes that appear from time to time.

CHAPTER 6: COURSE DESIGN

Introduction

- 6.1. Course design is a facet of Range Officer duties which is not always given the attention it deserves. All too often it has been a case of quickly sitting down and jotting down a few notes, which is bad course design.
- 6.2. **The Basis of Course Design.** A properly designed course is the basis
 - 6.2.1. of an enjoyable and stimulating shoot,
 - 6.2.2. that can be conducted safely and without delays and argument, and
 - 6.2.3. that sustains the competitors' interest and enthusiasm by challenging his ability without unrealistic challenges and targets.
- 6.3. **Development.** Course design also determines the development of the sport and it is particularly in this field where the Range Officer who has the necessary imagination and ingenuity to design courses that pose new challenges and problems, can make a vital contribution.
- 6.4. **Stereotype.** It is of the utmost importance that the Range Officer as course designer does not fall into the rut of simply repeating old and stale courses and/or presenting stereotype courses week after week. Nothing can dampen enthusiasm and kill interest in the sport quicker.
- 6.5. The sport does not need gimmicks to make a challenging course of fire; it needs imagination and serious thought. Applying the principles of course design in the IPSC Competition Rules will enable you to keep the course of fire ever young, challenging and interesting.
- 6.6. Some guidelines for course design are provided below. You are referred to the IROA Course Design and Construction Guide for more detail on general course design and discipline specific aspects.

IPSC Origins

- 6.6. The principles below are from the IPSC Constitution and define the nature of IPSC marksmanship. They are accepted by all the members of IPSC as conditions of membership. They are also the foundation of all good course design.
- 6.7. **Accuracy, power and speed are the equivalent elements of practical shooting** and practical competition must be conducted in such a way as to evaluate these elements equally.
- 6.8. **Firearm types are not separated, all compete together without handicap.** This does not apply to the power of the firearms as power is an element to be recognised and rewarded.
- 6.9. Practical shooting competition is a **test of expertise in the use of practical firearms and equipment.** Any item of equipment, or modification to equipment, which sacrifices practical functionality for a competitive advantage contravenes the principles of the sport.
- 6.10. Practical competition is **conducted using practical targets**, which reflect the general size and shape of such objects as the firearm used may reasonably be called upon to hit in their primary intended use.
- 6.11. The challenge presented in practical competition **must be realistic.** Courses of Fire must follow a practical rationale, and simulate sensible hypothetical situations in which firearms might reasonably be used.
- 6.12. Practical competition is **diverse.** Within the limits of realism, problems are constantly changed, never permitting unrealistic specialisation of either technique or equipment.

Courses of Fire may be repeated, but no course may be repeated enough to allow its use as a definitive measure of practical shooting skill.

- 6.13. Practical competition is **freestyle**. In essence, the competitive problem is posed in general and the participant is permitted the freedom to solve it in the manner he considers best within the limitations of the competitive situation as provided.

Factors to Consider

- 6.14. In addition to the guidelines published in the IPSC Competition Rules (Chapter 1 and 2), there are a number of factors to take into account when designing a course of fire, i.e.
- 6.14.1. Safety
 - 6.14.2. Clarity
 - 6.14.3. Relevance
 - 6.14.4. Freestyle
 - 6.14.5. Variety
 - 6.14.6. Training

Safety

- 6.15. As has been stressed throughout this Manual, safety is the primary concern of the Range Officer and this is as much a consideration in designing a course as it is in running a course of fire.
- 6.16. **Competitor Ability.** Our members are a cross section with different levels of skill. Don't design a shoot to give the top competitors in the club a real challenge and completely demoralise the competitor who has only recently graduated from the beginner's grade. By and large the intermediate competitors make up the bulk of our members, let's keep them enthusiastic, they too can develop into the top competitors if we keep them in the sport long enough.
- 6.17. **Common Firing Lines.** The exercise where a squad is on the line is where particular attention is required for the following reasons:
- 6.17.1. you often have the experienced competitor and the less experienced shoulder to shoulder within approximately 3 m of each other,
 - 6.17.2. what might be easy for the experienced competitor may be beyond the capabilities of the less experienced competitor who is now making an all-out effort to match the better competitor, and
 - 6.17.3. it is particularly on these exercises where competitors work to tight times and under stress that an accidental discharge is most likely.
- 6.18. **Pay Attention.** It follows that in designing a course of fire the Range Officer should pay particular attention to the following:
- 6.18.1. any course of fire that entails a change in stance or shooting position, such as starting strong or weak side, back to target, high and low ports, etc.,
 - 6.18.2. weak hand shooting,
 - 6.18.3. any course of fire where the time limits are very tight, having regard to the ability of the competitors.
- 6.19. **Medium and Long Courses.** Points to bear in mind when designing a medium or long course are, amongst others

- 6.19.1. any physical obstacle that the competitor has to go over or under,
 - 6.19.2. falling plates and other metal equipment that may cause a ricochet or splinter,
 - 6.19.3. any target so placed that a competitor who, under the stress of competition, may be inclined to overrun and then shoot back at, or a target placed close to a line along which a competitor is likely to move and which is not close to a side berm, and
 - 6.19.4. weak hand shooting.
- 6.20. **Particular Problem Areas.** The list of problems that the course designer has to bear in mind is never ending. It is not suggested that all problem activities should be avoided at all costs, for that is clearly not always practical. But the course designer should at least have been aware of the potential problems and weighed this against such factors as the experience of the competitors, the competence of the Range Officer concerned, the number of spectators, etc.

Clarity

- 6.21. **Rationale.** One unfortunately often sees courses that are unsatisfactory simply because the course designer himself was not clear on what he wished to achieve. This happens when there is no rationale behind the design of the course.
- 6.22. **Procedure.** For this reason it is strongly recommended that the course designer goes about the design of a course in the following way:
 - 6.22.1. find a situation (in broad outline) that you regard as being adaptable to a practical shooting course,
 - 6.22.2. analyse this situation and determine what skills you would test (shoot at multiple targets, accuracy, different shooting positions, etc),
 - 6.22.3. define the rationale most suitable to such a course, and
 - 6.22.4. then design the course on paper.
- 6.23. The course designer should have a clear picture in mind of the basic types of courses with their variations. These are set out clearly in chapter 1 of the IPSC Competition Rules.

Relevance

- 6.24. The principles of IPSC shooting should be paid more than just lip service. Your aim should be to take a relevant situation and reduce this to a course of fire. One is naturally handicapped to a very large extent by 3 factors, namely:
 - 6.24.1. restrictions imposed by safety considerations,
 - 6.24.2. the challenge faced by each competitor must be the same, which in turn makes it difficult to introduce an element of surprise, which to a restricted degree can be overcome with reactive targets etc., and
 - 6.24.3. the number of competitors involved, as owing to the time involved with scoring and patching, the time taken for the course itself has to be kept short as possible.
- 6.25. **Apply the Rules.** However, because concessions might have to be made to relevance, it does not mean that relevance goes by the board; if anything it means that greater effort must be made to achieve it.
- 6.26. **DVC.** Remember that the sport developed from and is based on balancing accuracy, power and speed. Herein lies the principal difference between practical shooting and precision shooting. In precision shooting the entire emphasis is placed on accuracy.

- 6.26.1. The emphasis should be on the balancing of speed and accuracy. As a rough guide it can be taken that a 25cm group within the A in 5 seconds is preferable to a 5cm group in 8 seconds. With Comstock scoring this is more or less automatically accommodated.
- 6.26.2. Emphasize speed of shooting with accuracy rather than deliberate type shooting, although all competitors should be capable of deliberate placing of shots in their own time.
- 6.27. **Reloads.** Forced reloads are limited in order not to limit the firepower of a firearm or interfere with a competitor's natural training.
- 6.28. **Improvisation.** As few restrictions as possible should be placed on technique, stance, etc., in order not to limit freedom of improvisation. The competitor should rather be asked to solve a given problem as best he can, which means that the following should be avoided as far as possible:

*By simply using vision barriers, simulated and real hard cover, and other props that restrict the movement of the competitor, while still allowing options, the manner or sequence in which the problem can be overcome, impractical competitor behaviour can be prevented, while still retaining the approach stipulated in the freestyle principle of the IPSC Competition Rules.

*If the beginner does not feel confident to hit A's beyond 5m it is just as well that he knows this. If the experienced competitor is good enough to engage targets at an acute angle, or score on difficult shots at greater distances, this will be the reward for his ability, while the beginner can still fulfil the stage requirements, albeit in a longer time, when having to move closer to the targets to get the shot.

- 6.29. **Freestyle.** Bear in mind the following IPSC principle:

"IPSC matches are freestyle. Competitors must be permitted to solve the challenges presented in a freestyle manner and to shoot targets in the manner he considers best"

- 6.30. **Emphasis.** The emphasis should be on shooting, not on

- 6.30.1. athletic feats such as a long sprinting course, scaling of high walls, crawling underneath a very low tunnel, low shooting ports, etc.
- 6.30.2. technicalities such as overstepping a line by a fraction, etc., or
- 6.30.3. involved, detailed instructions that make the test more one of memory than of shooting.

- 6.31. **Weak Hand.** If weak hand only is called for

- 6.31.1. this should be at the end of the course,
- 6.31.2. from that point onwards the competitor should continue with the weak hand, performing all functions without any assistance from the strong hand or arm, until the course is completed, and
- 6.31.3. handling the firearm or equipment with the strong hand does entail very heavy penalties (procedural error for every occurrence). See rule 10.2.8 for exceptions.

- 6.32. **Concealed Targets.** Concealed or partially concealed targets (hard and soft cover) are permissible, in fact even desirable.

- 6.33. **No-shoot Targets.** Where no-shoot targets are used, be aware of shoot-throughs. Remember targets are impenetrable and shots that pass through one target and go on to strike another cause endless problems for the Range Officer. Avoid this situation at all costs. Bear in mind that not all competitors will approach the problem in the same way and allow for this.

6.34. **Placing Targets**

- 6.34.1. Place targets as close to the backstop or berm as possible.
- 6.34.2. Shots should not result in direct hits on concrete, rocks and inadequately stacked tyres.

- 6.34.3. All shots at the target from any possible shooting position must be contained in the shooting bay, especially shots fired from kneeling and prone positions.
- 6.34.4. Shots fired by competitors of all physical heights must be contained in the shooting bay.
- 6.34.5. Steel targets must be placed at least 7m [handgun] from the closest overrun of the competitor. The steel must be placed square to the shooting position to prevent ricochets. Splatter to the sides and front will cause raggedness in targets placed close to the steel. Place solid traps to catch possible side splatter from the steel. This is why shooting glasses is essential to Range Officers, competitors and spectators.
- 6.34.6. Ground level targets placed away from the backstop or berm must have adequate bullet traps placed to catch any possible ricochets. This can be in the form of sand filled tyres, sandbags, hay bales, etc. Check for the bullet strike and adjust the bullet traps until they adequately contain the shots.
- 6.34.7. Target frames are constructed of wood. Keep metal to a minimum especially the close range targets. Metal frames holding the wood must be kept as far away from the shootable areas as possible.

Variety

- 6.35. Variety is the spice of life: we participate in matches in order to compare our performance with that of other competitors, but also for the excitement of a new course of fire. It is essential that we avoid stereotype courses.
- 6.36. **Old Courses.** There is no objection to using old courses provided that:
 - 6.36.1. no course is shot repeatedly and allowed to become a definitive measure of practical skill - if this is constantly practised it loses all value;
 - 6.36.2. if such a course is used, it is scrutinised fully, and if necessary amended to comply with the principles of course design.
- 6.37. **Fun Shoots.** On the club range "fun shoots" should not be neglected. Balloon, numbers, dart board shoot, etc., keeps alive the fun during off times.

Developing Skill

- 6.38. **Purpose.** The purpose of developing practical shooting skills is to
 - 6.38.1. to improve proficiency in the handling of the specific firearm,
 - 6.38.2. to fix a pattern of automatic reaction, in other words, to train the competitor to react subconsciously, and
 - 6.38.3. to develop engagement logic.
- 6.39. It is therefore immediately apparent that
 - 6.39.1. the 'Standards Exercises' provide the foundation of shooting proficiency but are a means to an end and not an end in itself, and
 - 6.39.2. Long Courses, the Man vs. Man, Short Courses, etc., form an integrated whole and should be viewed as such.
- 6.40. **Statistics.** In order to do this effectively the Range Officer or club training officer needs statistics reflecting what progress is made, identifying weaknesses, etc. The simplest way to obtain this information is to use score sheets.
- 6.41. **Development Program.** A program may be undertaken as a specific project. This will probably be done as a matter of course in the case of beginners in the established clubs and

also by the newer clubs that are not yet fully committed to competition. It will normally be found that the Range Officer has to take the initiative and somehow integrate the league, practice of published courses for matches, championships, etc., into such a program.

- 6.42. To achieve this it becomes doubly important the Range Officer
 - 6.42.1. is conscious of the problem,
 - 6.42.2. analyses the results of shoots to identify areas of weakness that require special attention, and
 - 6.42.3. designs courses and exercises that supplement the league, etc.
- 6.43. The average member may not even be aware that he is, in effect, being put through an advanced training course if the Range Officer does his homework and introduces courses and exercises dictated by the needs of the individuals as well as the group.

General

- 6.44. **Promotion of the Sport.** Good course design is very important to promoting the sport. All the aspects mentioned above should be borne in mind when designing a course of fire to improve the spectator appeal of the course being designed.
- 6.45. **Public Appeal.** In order to interest potential sponsors etc. the sport must appeal to the public. Continued sponsorship will eventually enable the club to increase its facilities and membership. The use of reactive targets will improve spectator appeal, allowing spectators to follow a competition and observe the difference between individuals' skills.

CHAPTER 7: RANGE PROCEDURE

Stage Procedure

7. The efficient management of a stage and correct use of personnel and procedures provides the best performance on the range. The Range Officer must plan the administration of his stage so that it requires the minimum time and effort to get the squad through without rushing them or appearing unprofessional. Three officials are preferred to run an efficient stage.

The Range Officer. Watches the firearm and general safety. The Range Officer carries the timer and maintains a position within 'reach' of the competitor.

The Scorekeeper. Watches for any procedural faults, etc. and records the scores.

The Stage Organiser. Gets the next competitor ready to go (briefing, answer questions, etc) and keeps the shooting order.

7.1. "On Air" and "Off Air" Time

"On Air". This time belongs to the competitor - from "Load and Make Ready" to "Range is Clear" (normally 1 - 2 minutes).

"Off Air". This time belongs to the Match Officials. This time is used for all the other functions such as scoring, patching, etc. (3 - 4 minutes). A good guideline is a minimum of 14 competitors per hour, (4 minutes or less per competitor).

7.2. Management Tips.

Use the "Stage Organiser". He announces the shooting order and gets the next competitor ready on the line before the Range Officer returns from scoring.

In local matches, use competitors to help patch targets, pick up plates, reset the equipment, etc, after they have shot.

7.3. Where to Place Yourself

7.3.1. Always position yourself to be able to see the gun and the trigger finger. Or place your backup Range Officer there.

7.3.2. Keep out of the competitor's per peripheral vision.

7.3.3. Give the competitor room in confined spaces

7.3.4. Try to anticipate the shooters intentions especially where he has passed a target.

7.3.5. It isn't always necessary to follow competitor, you can stay in one place if there is minimal movement.

7.4. Backup Range Officer.

He

7.4.1. ensures that the correct shooter is on the line,

7.4.2. announces who is on stand by ,

7.4.3. stands in a position to see what's going on during the shoot to back up the Range Officer's call or to make a call,

7.4.4. scores the stage when complete,

7.4.5. signs off the score sheet with the competitor.

Daily Stage Inspection

- 7.5. **Stage Inspection.** The first thing a Range Officer must do on getting to his stage is to inspect it to see that it is set up according to the published course of fire. If not, set up the stage according to the written shoot booklet/briefing [WSB]. If there are differences clear

this with the Range Master before the first competitor starts. If you think that something on the stage or the course of fire needs changing, clear it with the Range Master first; you may inadvertently change the layout and cause endless trouble with arbitration and reshoots.

- 7.6. **Range Officer Pack.** Check that your Range Officer pack is complete and that you have enough spare targets, sticks, patches, etc for the day. Be a low maintenance Range Officer.
- 7.7. **Cleanliness.** Clean up the area and make sure that a rubbish bin or bag is available. Clear up after every squad and make certain that your stage is neat and tidy before the next squad gets there.
- 7.8. **Between Squads.** Check the targets, replace them if necessary, repaint the plates, take the score sheets to Stats if nobody has collected them yet. Make certain that you drink enough water in winter and summer.

Shooting Order

- 7.9. The shooting order must be the same for all squads in a match for consistency and fairness.
- 7.10. IROA has a shooting order that works well, is easy to understand and is fair to all. See the shooting order in the IROA Member Handbook. It is recommended that it be used at all levels of competition. For consistency the Range Master must decide on the shooting order before the match starts.

Squad Briefing and Walk Through

- 7.11. **Briefing.** The IPSC Competition Rules are specific on what should be included in the briefing for each stage and that a copy is displayed for the competitors to read on the stage. However, it is essential that the Chief Range Officer for the stage read the briefing verbatim to each squad. The same person reads the same information in the same way for every squad, ensuring consistency and fairness in the briefing. Do not add to or take away anything from the briefing; this only leads to complaints and arbitration, especially if there is more than one Range Officer briefing the competitors.
- 7.12. **Walk-through.** After reading the briefing, take the squad on a walk through the stage, demonstrating the moving and reacting targets and starting position. Show the moving and reacting targets only once per squad. Allow time for them to view the stage and try the activating and other equipment, depending on the size of the squad. After this only allow the competitors on the stage for patching and picking up. Only the next competitor to shoot must be allowed on the starting position and to ‘practice’ but allow that competitor sufficient time to view the stage again without wasting time. Make this clear to the competitors during the walk through. Rule 8.7.3.
- 7.13. **Equipment Check.** Part of the due diligence that every Range Officer should do as a matter of course is to check competitor equipment on the stage. This equipment check is for conformance to the Division requirements and does not replace the equipment check on registering for the competition. The equipment check can be a cursory scan of the competitors before the briefing starts or a formal check per stage as part of match arrangements. In the case of a formal equipment check per stage, an equipment check sheet may be used. See Appendix to the IPSC Competition Rules for an example of an equipment check sheet.

Targets and Scoring Methods

- 7.14. **Targets.** The only targets that are used in competitions are:
 - 7.14.1. the IPSC target and Mini target,

- 7.14.2. the IPSC Popper and Mini Popper,
- 7.14.3. round, square and rectangular metal plates per discipline [Appendix C3],
- 7.14.4. the Universal target for rifle and shotgun,
- 7.14.5. the A4/A and A3/B paper targets for rifle and shotgun, and
- 7.14.6. frangible targets for rifle and shotgun.

The descriptions of the targets can be found in Appendices B and C to the Rules.

- 7.15. In any competition conducted under IPSC Competition Rules only the official IPSC targets may be used. For this reason it is suggested that only these targets are used always so that competitors are familiar with the targets when competing in any IPSC match.
- 7.16. The IPSC targets and their scoring are clearly indicated in each copy of the Rules.
- 7.17. **Scoring Lines.** The scoring lines on all targets must not be visible beyond ten meters, preferably a perforation method of marking the lines. All targets, including no-shoot targets, are to have a non-scoring border as indicated in the various discipline Appendices.
- 7.18. **Using an Overlay.** Every Range Officer should have a scoring overlay with him on the stage, preferably two as they complement each other in the scoring verification. See Appendix A to this chapter on how to use the scoring overlays.
- 7.19. **Scoring Appeals.** The procedure is for the Range Officer to initially score the target. If the competitor doesn't agree with the Range Officer's scoring, he can ask the Chief Range Officer to score the target. If he still doesn't agree with the scoring, he can request that the Range Master score the target. (Rule 9.6.4 – 9.6.7)

If the Range Master can't come immediately, then the target should be removed and replaced. This will prevent delays in the stage while waiting for the Range Master to score the target. The target is removed from the supports and remains under the control of one of the Range Officers until the Range Master arrives. It must be signed by the Range Officer and the competitor, the hit in question must be indicated, and the time of day written on the target. Once the Range Master has scored the target, no further protest can be made.

Nobody should handle the target except the Range Officers. When the Range Master finally arrives, it's not necessary to let him know who the target belongs to. It's not relevant information.

- 7.20. Pushing the bullet hole in from the back is not good practice and should not be done. It usually doesn't help with determining the hit and may distort the hole, making scoring the appeal more difficult for the Chief Range Officer or Range Master.
- 7.21. **Benefit of the Doubt.** There is no such thing as "benefit of the doubt" in our Rule book. You must score what you see, aided by your overlays. To be consistent in scoring within the Rules, Range Officers don't give the competitor anything: the competitor earns his score by shooting it.
- 7.22. **Partial or Edge Hits.** Since there are no non-scoring borders on hardcover steel or steel no-shoot targets, bullets that strike the steel and then a paper target can present unique scoring challenges. In the case of simulated hard cover, which is merely painted onto a target, if the bullet hole touches the scoring portion of the target, the hit counts in that scoring zone. One way to find this evidence is to look for a partial bullet diameter or radius or "crown". Inspect the hole in the target for a partial bullet diameter or radius, similar to looking for a double. If you can find evidence of a partial bullet diameter, then the hit on the paper target counts, since this indicates that a significant, identifiable portion of the bullet passed through the target after hitting the hardcover or steel no-shoot. See Rules 9.1.5 and 9.1.6 for further clarification.

Penalties and Disqualification

- 7.23. The Range Officer must make a clear distinction between penalties and disqualification.
- 7.24. **Penalties.** Penalties are simply that. The competitor is penalised for making a procedural error, misses, hitting no-shoots, etc., resulting in points being deducted from his score.
- 7.25. **Disqualification.** Completely different from the penalty, the disqualification is a disciplinary measure for a major transgression, usually an infringement of safety Rules. This usually entails losing the score for the entire match, literally "being sent off the field".
- 7.26. A competitor is stopped from shooting but not disqualified, when he may be injured during a stage, and the Range Officer considers it detrimental to his health to allow him to continue, or the Range Officer suspects that a bullet may be stuck in the firearm's barrel, or the competitor has lost his glasses or ear muffs, etc. This all has to do with competitor safety.

Scorers, Patchers and Case Collectors

- 7.27. **Range Officer Responsibility.** Scorers and patchers assist the Range Officer, which means that
 - 7.27.1. he remains responsible for their actions and, therefore, for their mistakes, and
 - 7.27.2. he has an obligation towards them.
- 7.28. **Scoring and Patching.** Scoring and patching are both tedious and thankless jobs and the Range Officer should see that
 - 7.28.1. patchers are given appropriate breaks,
 - 7.28.2. there are sufficient people who understand and have experience of scoring so that this duty may be rotated, and
 - 7.28.3. the scorer gets recognition for the work and that he or she is not simply taken for granted.

It is a small courtesy that takes no effort specifically to introduce a scorer by name at the start of the stage briefing.
- 7.29. **Scorers.** If more than one scorer is going to be used in any event (and this is desirable) the Range Officer should get together with the scorers before the event and make sure
 - 7.29.1. that they understand how the score sheets are to be completed,
 - 7.29.2. that the same method of scoring will be used by all, and
 - 7.29.3. that they understand the signals the Range Officer will give for penalties, procedurals, etc.
- 7.30. **Scoring from the Start.** With patching and scoring on a long course the scorers and patchers often start working from the start while the competitor is still shooting, particularly where the event is run to a tight time-schedule. There is no objection to this **PROVIDED** that the squad is briefed accordingly, they do not move forward too quickly, for instance where the course entails shooting in the direction of the berms, and that a nominee of the competitor accompanies the scorer to verify that the score is recorded correctly.
- 7.31. **Case Collectors.** "Case collectors" are something of a problem, firstly as far as safety is concerned and secondly administrative. This is not of concern at a Level V match where cases aren't picked up by competitors.
 - 7.31.1. Safety wise on long course case collectors should be controlled so they do not get over zealous and ahead of the Range Officer, which principally happens where the terrain is

such that cases may easily be lost. This requires the Range Officer staying with the competitor and he cannot amble along at his leisure.

- 7.31.2. Administratively because the time taken to hunt the missing few cases can make a stage run behind schedule quite quickly. Picking up cases can always be done later and must not delay the running of the stage.

Scoresheet Checklist

- 7.32. Below are some best practices for accurate and complete scoresheets.
- 7.32.1. **Write CLEARLY.**
- 7.32.2. Always use numbers, NEVER use hash marks.
- 7.32.3. **Repeat Calls.** The scorer must repeat ALL scoring calls (hits or penalties) and time so the Range Officer knows they were recorded correctly.
- 7.32.4. **Total.** Total all the columns.
- 7.32.5. **Cross Total.** Cross total the total hits, misses, non-shoots and procedurals to make sure they correctly add up to the stage round count.
- 7.32.6. **Circle.** After you cross total, CIRCLE the shot count number to show you checked this.
- 7.32.7. **Procedurals.** If procedurals are recorded, write down the reason for the procedural penalty with the rule number to avoid questions later.
- 7.32.8. **Penalties.** Do NOT write anything in the penalty boxes except penalties!
- 7.32.9. **Warnings.** If you issue a warning to a competitor, write down the reason for it and the rule number to avoid any doubt. Remember the Stats Officer will inform the Range Master, who will follow it up in case of repetition of the same fault.
- 7.32.10. FOCUS on the scoresheet, NOT on the target! The easiest way to avoid scoresheet errors is to focus only on the scoresheet and avoid looking over the Range Officer's shoulder while he scores a target. Always let the Range Officer do his job and call the score, while the scorer does his job and writes down the accurate score.
- 7.32.11. **Alterations.** Initial any alterations you might have made on the scoresheet and see that the competitor also initials the alterations.
- 7.32.12. **Feedback.** Once you have completed and checked the scoresheet, talk the competitor through it. Put the completed scoresheet in front of the competitor, and then call everything out. For example, *12 Alfa, 2 Charlie, total of 14 hits. No penalties and your time was 5.73 sec.*
- 7.32.13. **Signature.** After the competitor has reviewed the scoresheet, have them sign it. Make sure that YOU sign the scoresheet after you have checked the time and score and don't forget to record the time of day.
- 7.32.14. This all seems so simple, but we make far too many errors on scoresheets. The competitor showed up to shoot, paid his entry fee, shot his match and deserves an accurate accounting of his score. Scoring is often approached more casually at lower level matches, but this is where good habits start. Taking a little more time to double check makes the Stats job easier and helps the competitor get an accurate score.
- 7.32.15. See Appendix B for an example of a completed scoresheet.

Disqualifications

- 7.33. A disqualification [DQ] is the severest sanction that can be applied during a competition and is applied at all levels. Such sanction is not lightly applied but it occurs in many competitions. The reasons for a DQ are all linked to safety infringements or possible safety infringements and are intended for compliance to safety. The IPSC Competition Rules are clear on this and will not be discussed here.
- 7.34. DQs are not something that a Range Officer actively seeks out, it usually finds you. It is always as a result of competitor action, owing to a safety infringement by the competitor that may be his own error or poor course design. This is why good course design is so important. A DQ is not something that we want to do but do not hesitate if it happens. Condoning a breach of safety will have repercussions as the competitor may possibly repeat it later. Other competitors will judge you on this and it will make enforcing any of your decisions later difficult.
- 7.35. **Range Officer Action.** The Range Officer must stop the competitor immediately an unsafe action takes place. Unload and show clear, and then explain to the competitor the reason for the DQ. Usually the competitor knows what went wrong and accepts gracefully. In all cases, the Chief Range Officer for that area and the Range Master should be called. While you are waiting for either or both of them, complete the DQ documentation that should be in your stage pack. Make specific mention of the IPSC Rule and the circumstances of the DQ and be doubly sure that the time of day is entered on the score sheet and DQ form. Ask the competitor to wait there until the Range Master or Chief Range Officer arrives. That is so that the Range Master can be aware of what is happening on the range, that the competitor is satisfied, and the Range Master may rectify any misjudgement that you may have made before it escalates.
- 7.36. A DQ is unpleasant at the best of times; therefore handle the competitor with the necessary patience and tact. Do not become involved in an argument with the competitor, ask him to wait for the Range Master and carry on with the next competitor.
- 7.37. If you have more than one DQ on your stage for the same reason, investigate and determine what the cause is. Get the Range Master and discuss this with him to find a solution. Do not do this on your own as this may change the conditions of the shoot for all subsequent competitors and cause a reshoot for those that have completed the stage already. This is a decision that only the Range Master may take.
- 7.38. If you must shout "Stop", ensure you are close enough to the competitor to prevent him from inadvertently turning around with a loaded gun.
- 7.39. If you must disqualify a competitor, never discuss the issue until the gun is unloaded and securely holstered. Making the range safe is your primary responsibility.

Arbitration

- 7.40. It may happen that the competitor wants to dispute your decision on any matter except for scoring. This is the right of the competitor to do this, do not take exception if this happens to you.
- 7.41. To start with there must be a dispute that cannot be settled by referring it to the Chief Range Officer or Range Master. They may be able to settle disputes without having to go through the arbitration process. This is always the first step in settling any dispute.
- 7.42. The procedure is that the competitor must complete the necessary request that should be included in your Range Officer pack and hand it to the Range Master within one hour of the occurrence, failing which the arbitration request fails. The Range Master will handle this further and you will carry on with the rest of the squad. You may be called to explain to the Arbitration Committee what happened. You abide gracefully by whatever the Arbitration Committee decides.

How to be a Better Range Officer

- 7.43. Always have a clear, written stage briefing (approved by the Range Master) and read it out to each and every squad. Read it. Do not take it from memory [Rule 3.2.2]. Also ensure that a copy is posted at the stage entrance so competitors can also read it.
- 7.44. Please do not give a stage briefing or issue range commands while holding a cigarette or cigar.
- 7.45. If a competitor wants to ask you a question about the stage, ask the competitor to wait while you assemble the entire squad and your fellow Range Officers before you reply. In this way everybody hears the same question and the same answer. If you think the question and answer might influence the conduct, procedure, scoring and/or application of penalties for the stage, summon the Chief Range Officer or Range Master.
- 7.46. If a rule issue arises, don't quote Rules from memory. Always have a rulebook with you and look up the answer, then show the competitor the applicable rule. If you are in doubt, summon the Chief Range Officer or Range Master.
- 7.47. If you must DQ a competitor please apologise to the competitor. The competitor's actions caused the DQ and you really hate to DQ a competitor.
- 7.48. If the competitor is upset about a DQ, remain calm. Give him your reasons and offer to summon a more senior official to assist. He has every right to make an appeal according to the Rules.
- 7.49. Enjoying friendly talks with the squad is good but, when the competitor comes to the line, it's down to business; this is not the time for idle chatter. Many competitors are not fluent in English, so asking "Having a good match?" can be misconstrued as "LAMR".
- 7.50. Never speak to the competitor during his attempt at the COF unless you're issuing a warning (e.g. "finger" or "muzzle").
- 7.51. Give the range commands clearly and focus fully on the competitor only. Recite Range Commands verbatim; do not add or omit words. Do not rush the Range Commands; speak them loudly and clearly, with a few moments separation between them.
- 7.52. You don't need to hold the timer up in the air with an outstretched arm as if you were trying to show the timer to the sun. It's more stable for your balance and footing to hold the timer below shoulder height, until you arrive at the final shooting location.
- 7.53. The final command is "Range Is Clear", and this always takes precedence over the time or anything else.
- 7.54. During scoring, if a competitor challenges a scoring call, don't just dismiss him - the difference between an A and a C may mean the difference between 1st and 2nd place. Take out your scoring overlay and take the time to carefully check the challenge, but only score what you can actually see. Never give a hit on a "benefit of doubt" basis, as you have more than one competitor to consider.
- 7.55. After scoring a competitor, stay downrange and be the last person to return to the start position. In this way you can make sure that the stage is clear before you start the next competitor.

Debugging a Stage and Being Prepared

Safety

- 7.56. Check every possible angle of fire to check that the stage will be safe for each competitor, official and spectators.

- 7.57. Check the range surface for dips, bumps, rocks and other irregularities that may potentially cause a competitor injury.
- 7.58. Check that all props a competitor might use for support (including doors and ports) are strong and durable enough for the intended purpose and for the duration of the match.
- 7.59. Check that targets are not placed too high whereby shots passing through them will leave the shooting bay.
- 7.60. Make sufficient space for the Range Officer to monitor safe competitor action without interfering with the competitor.

Scoring

- 7.61. Check every possible angle of fire for shoot-throughs, remembering to consider short and tall competitors.
- 7.62. If there are partial targets on the stage, make sufficient and identical sets of spares in advance for consistency and more efficient replacement.

Consistency

- 7.63. Secure each target stand and popper to the range surface.
- 7.64. Mark paper target stands/sticks with the precise angle, location and layout of targets. Take digital photos if possible [your cell phone].
- 7.65. Make a written note of the sequence and presentation of all Scoring and Non-shoot Targets, especially overlapping and adjacent ones.
- 7.66. Number the targets on the back or on the sticks so that you always know what sequence you are scoring the stage in.
- 7.67. Record the height of non-standard length sticks used to hold paper targets, in case they get shot and need to be replaced, and have spares ready.

DQ Traps

- 7.68. Place targets so they don't encourage a competitor to inadvertently run past them while shooting and therefore break the 90 degree angle.
- 7.69. With a table start, use a non-slip surface to prevent the firearm moving when the competitor reaches for it and anchor the table itself securely.
- 7.70. It's better to use a rear starting line (i.e. heels against line) rather than a starting box, to minimise the chance of competitors tripping.
- 7.71. Use strongly braced barricades rather than fault lines to further minimise the chance of tripping.

Supplies

- 7.72. Have spare cable lengths for activators of moving targets in case they get shot and broken.
- 7.73. Have plastic covers for the targets ready if the weather looks rainy.
- 7.74. Have at least one spare battery for your timer and, if possible, a spare timer.
- 7.75. Have an ample supply of buff, white and black patches for paper targets, plus the correct colour paint for poppers and plates.

Watch What Needs To Be Watched

- 7.76. Watch the firearm during loading, reloading, unloading and movement.
- 7.77. Do not watch the competitor's feet. If there are fault lines, your assistant Range Officer should be watching.
- 7.78. Never look at the timer until after you issue the "Range Is Clear" command. If you are holding the timer properly, it will pick up the shots but, as you approach the final array, move it closer to the competitor, because the only time that really counts is the one for the last shot.
- 7.79. Never walk (or look) away from the competitor until his hand is clear of the securely holstered handgun.
- 7.80. When dealing with loading and unloading, focus 100% on the competitor.

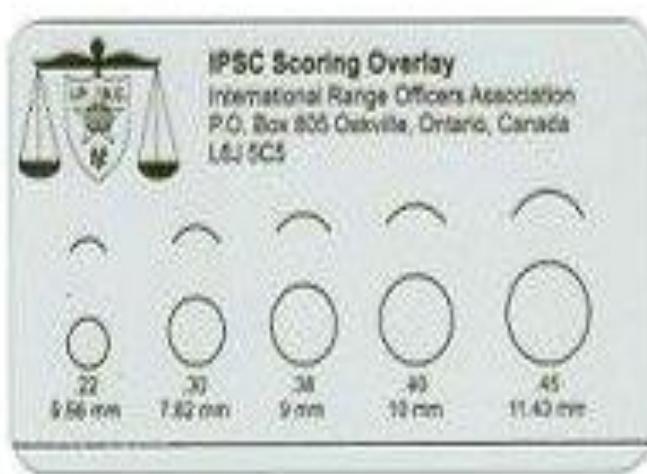
Using Scoring Overlays

1. **Introduction.** Overlays are used by Range Officers as an aid to score hits on paper targets that are too close to call with the naked eye, or to score hits that are in dispute, or to look for evidence of a “double” (two bullets through virtually the same hole). This Appendix will provide guidance in the use of IPSC overlays, but there is no substitute for practice and experience. Use them at every opportunity; they don’t wear out and are inexpensive to replace. You as a Range Officer should always have your overlays with you on the range. Using these overlays to score targets may appear easy and simple, especially in the hands of an experienced Range Officer, but they can be a challenge for the new Range Officer. Scoring plugs are not used in IPSC scoring.
2. **What is a Scoring Overlay?** The IPSC scoring overlay is a transparent template that helps the Range Officer to verify the competitor’s hits on the target. Overlays are inexpensive, portable, and identical from one set to the next, so that people all over the world can consistently score disputed targets without causing any delay in the match schedule, with no damage or distortion to the target. The overlays have markings for .45, 40/10mm, .38/9mm, .30/7.62mm, and .22/5.56mm. They can be used to score hits made by handgun and rifle bullets and should soon include shotgun. Overlays can be purchased through the IPSC store.
3. **Using the Overlay.** The most common use for an overlay is to score single hits that may possibly score higher or may have hit the scoring area of a no-shoot target. Only one overlay is required in this case. Follow these steps to determine the value of a scoring hit using one overlay:
 - 3.1. Determine what calibre the competitor is shooting by asking him, or if you are scoring a pulled target, ask the Range Officer.
 - 3.2. Place the overlay on the target, centring the bullet hole in the middle of the appropriate calibre circle on the overlay. The dot in the centre of the circle is placed there to help with this. Be precise, even though the bullet hole may not be perfectly round. Most bullet holes will have a “grease ring” or mark left by the bullet’s passage through the target that will aid in aligning the overlay properly.
 - 3.3. Compare the outside diameter of the circle on the overlay with the outside diameter of the bullet hole and determine how the hit is to be scored. On scoring targets, hits touching a higher scoring zone score the higher value. The outside diameter of the circle on the overlay only needs to touch the scoring line of the higher zone for the hit to count (Rule 9.5.2). For no-shoot targets, the outside of the circle on the overlay need only to touch the scoring zone on the no-shoot target, not the non-scoring border, for the hit to count as a no-shoot (Rule 9.5.3).
 - 3.4. If the scoring line is not clearly visible owing to tape or patches, use the second overlay or a similar straight edge such the clip board, timer, etc. to re-create the perforated edge of the scoring zone. Simply align the edge of the overlay with at least two visible points of the perforation on the target, creating a straight line, and use the other overlay to score the hit as described above.
4. **Scoring Doubles.** A possible “double” is where the competitor claims two bullets passed through the same hole. A double is theoretically possible but is highly improbable in our sport because we are usually moving while shooting, sometimes at moving targets and sometimes doing both. Additionally, even if one bullet passes perfectly through another bullet hole without leaving any trace, it still looks like one bullet hole, and is scored accordingly: as a single hit.

Usually, a “double” is two bullets striking the target in almost the same place. This is usually obvious as two hits to the unaided eye, but occasionally you may be called upon to score a hit that looks funny, or wide, or misshapen in some way. This is when you use both overlays, and here are the steps to follow:

- 4.1. First, follow steps 1 and 2 listed in paragraph 3 above, centring the overlay over the bullet hole precisely.
 - 4.2. Holding the first overlay firmly in place, use your second overlay to examine the suspect hit. What you are looking for is a partial bullet diameter or radius caused by the second bullet's passage. This will be the only evidence of a second bullet passing through the target in the same general area as the first hit.
 - 4.3. If you observe a partial bullet diameter, or radius, score the target accordingly. One or both hits may touch the line for a higher scoring zone, or a no-shoot target hit, and must be scored as such.
 - 4.4. If there is no evidence of a second radius, the hit is scored as a single hit. In all cases, the required number of hits on that target must be accounted for. (Rule 9.5.1)
5. **Scoring Hits on the Non-Scoring Border.** If you are scoring a hit on the edge or non-scoring border of a target it may not always be possible to centre your overlay on a full bullet diameter. You will have to use your judgment as to exactly where the edge of the bullet hole is, and score the target accordingly. Success comes from experience.

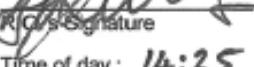
IPSC Scoring Overlay



APPENDIX B TO CHAPTER 7

Scoresheets: Important Notes

1. Use numbers, (1, 2, etc.) not slashes or Roman numerals (I, II, etc).
2. Enter competitor's time for the stage with two decimal places.
3. Add all columns and add the totals in the boxes.
4. Enter a brief reason in the Comments section for procedural penalties.
5. Range Officers should only sign the score sheet *after* carefully verifying that all data is correct.
6. This is an important document and must be treated with care and respect.

TARGET	Points				Penalties			COMMENT
	A	B	C	D	Miss	P/T	Proc	
P1	1							
P2	1							
P3	1							
P4	1							
PL1	1						1	<i>FOOT FAULT</i>
PL2	1							
T1	2							
T2	1			1				
T3	1	1						
T4	2							
T5	1		1					
Totals :	13	1	1	1		1		Hits + Misses = 16 Possible Points = 80 Time: 9 . 26
 Competitor's Signature  R.O.'s Signature Time of day : 14:25								Check : _____ Score : _____ Enter : _____ Verify : _____
Match: DSAS IPSC Shoot July 2006 Stage: 2 Balinese Coconuts								

CHAPTER 8: FIREARMS AND RELOADING

- 8.1. **Introduction.** It is accepted that the Range Officer is normally an experienced competitor who is familiar with the working principles and has practical knowledge of the firearms he is likely to encounter on the range, as well as the principles and practice of reloading. This basic knowledge is not covered in this Manual but the Range Officer must have to be able to know when to declare a firearm or ammunition unsafe, may expect questions from competitors and club members and should have some idea of what to answer. Remember in a competition there are always the Chief Range Officer and Range Master to consult in case of doubt.

Firearms and Calibres

- 8.2. IPSC is not restricted to handguns. The sport consists of five disciplines, which are Practical Handgun, Rifle, Mini Rifle, Shotgun and Action Air [handgun]. It must, however, be accepted that most events are restricted to handguns and shotguns as rifle ranges are less common than pistol ranges. The Handgun, Rifle, Shotgun, Mini Rifle and Action Air Rules, and Grand Tournament Rules are available from the IPSC website.
- 8.3. **Power.** The minimum power accepted in competition is called minor and is specified in each set of the IPSC Competition Rules. The power is expressed in the term factor, which is calculated for every firearm at each major match, often on a sample basis at smaller matches too.
- 8.4. **Factor.** The factor is calculated as follows: (bullet weight in grains x velocity in feet per second [fps]) divided by 1000. Or grams x velocity in meter per second divided by 1000.

$$\frac{\text{Bullet weight X velocity}}{1\,000}$$

- 8.5. **Calibre.** The only restriction on firearms is the calibre. This is in recognition that Practical Shooting is designed to balance the three elements - power, speed and accuracy. Any of the accepted calibres can be classified as major should they meet the requirements for major factor within the Rules. There are restrictions in the various Divisions for good reasons.
- 8.6. All firearms, be they revolver, semi-automatic, single action, double action, single shot, pump action, bolt action, falling block, lever action, etc may be used in the sport. Practice has, however, proven that the semi-automatic's fast reloading ability has taken over in especially the open division, with the other actions common in the other divisions.
- 8.7. The velocity of a bullet is measured with a chronograph. Rule 5.6.

Malfunctions

- 8.8. **Focus.** In this Manual we are concerned with the malfunctions in firearms that are likely to occur on the range. The safety precautions below are recommended.
- 8.9. **Range Officer Responsibility.** The primary responsibility to ensure that his firearm (and ammunition) is in safe working condition **rests on the competitor**. However, firearms also fall under the blanket authority of the Range Officer and he may declare any firearm [note, not the competitor] unsafe and therefore ban it from the competition.
- 8.10. **Benefit of Doubt.** In the interest of safety, the benefit of the doubt, if any, is NOT given to the competitor. A firearm that has malfunctioned is suspect! Satisfy yourself completely that it is functioning properly before giving it the OK. You are entitled to rely on the assurance of an experienced competitor that his firearm is now in order.

8.11. **Competitor Experience.** The Range Officer will of necessity be guided in his conduct to a degree of the experience of the competitor. In the case of an inexperienced competitor the Range Officer should, if the competitor appears to be in doubt how to handle the problem, pay particular attention to safety. Stand closer to prevent inadvertent unsafe movement to you the Range Officer, the competitor himself and the rest of the squad and spectators.

8.11.1. Once the malfunction is rectified, the competitor should then be allowed to continue.

8.12. **Revolver Jams**

8.12.1. Under recoil an improperly crimped bullet may move forward in the case.

8.12.1.1. In the actions where the cylinder rotates clockwise, the cylinder may be opened and the defective round ejected without problems.

8.12.1.2. A bullet may be jammed between the cylinder and the barrel in the flash gap. This bullet will have to be pushed back into the case and this should NOT be done in haste on the line. In the case of revolvers where the round comes up from the opposite side, the protruding bullet will have to be pushed back into the case far enough to get past the barrel before the cylinder can be swung out and the round ejected.

8.12.2. A small foreign object (shaving of lead, etc.) may be lodged between the cylinder and the barrel; normally a little force will allow the cylinder to rotate.

8.12.3. Proud primers may prevent the cylinder from revolving. This is not common owing to the revolver's strong hammer action.

8.12.4. Revolvers shoot loose and wear. The revolver's timing does not then allow the cylinder to line up or lock up.

8.13. **Semi Auto Jams**

8.13.1. Normally a jam is the result of failure to feed or eject. The steps to be taken are:

8.13.1.1. Point the firearm down range.

8.13.1.2. Remove the magazine.

8.13.1.3. Open the action and lock open.

8.13.1.4. Remove the jammed case or round from the magazine or action.

NB. Since it is necessary to get the action open and considerable force is sometimes required, a common error is that the competitor may turn the arm in line with the barrel or even turn the firearm sideways and drop his elbow or forearm in line with the barrel or even turn the firearm to point at another person. Always point the firearm in a safe direction.

8.13.2. Action not closing properly is commonly caused by

8.13.2.1. a bullet not seated deeply enough. When attempting to eject this round, the bullet may remain stuck in the barrel and pull out of the case, spilling the powder charge into the working parts of the firearm. The firearm should be cleaned thoroughly before further use.

8.13.2.2. a build-up of foreign matter (dirt, lead, shavings, etc.) against the ridge of the chamber;

8.13.2.3. a loose primer may fall out and prevent the action from opening all the way.

8.13.2.4. the case may exceed the chamber dimensions and thus fail to chamber fully.

8.14. **Pump, Bolt and Lever Action Jams**

8.14.1. These actions seldom jam but when they do it is usually owing to faulty ammunition and cannot be easily fixed on the firing line. Take special care with these actions for safety in clearing the jam.

- 8.14.2. Lever actions are seldom seen in practical shooting matches.
- 8.14.3. Pump actions are common in shotgun matches
- 8.14.4. Bolt action firearms are seen in rifle matches.

8.15. Misfires

Revolvers

- 8.15.1. A weak main spring. This can be felt when cocking the firearm. Competitors sometime deliberately slacken off the tension for a lighter trigger pull.

Semi Auto, Pump, Bolt and Lever Action Firearms

- 8.15.2. A weak hammer or striker spring.
- 8.15.3. A proud primer.
- 8.15.4. Certain primers may cause misfires as they are either too hard or too soft for use in a particular firearm.
- 8.15.5. Defective ammunition.

- 8.16. **Machine-Gunning in Semi-Autos.** The following are causes of the firearm firing full automatic:

- 8.16.1. A defective sear.
- 8.16.2. Proud primers.
- 8.16.3. A loose primer may also cause a premature shot as the action slams closed, although this will be a single shot and not machine-gunning.
- 8.16.4. The selector lever on semi auto rifles has moved to automatic. This is handled under the Rifle Rules [no score for the stage, etc].

- 8.17. **Broken Parts.** This subject is far too wide to cover in these notes and is in any event not a subject for the Range Officer, other than to be able to identify a firearm that is out of action owing to a broken part. The most common parts that break are:

- Firing pin
- Blown barrel
- Extractor
- Sights
- Sear
- Slide stop

When to Declare a Firearm Unsafe

- 8.18. **Trigger Shoe.** A firearm fitted with a trigger shoe wider than the trigger-guard (or a trigger wider than the trigger-guard). This is mandatory for handgun in terms of the IPSC Competition Rules but different for rifle and shotgun.
- 8.19. **Broken Parts.** A firearm with any broken part and in particular semi auto firearms with defective sear which fires double or a string, or
 - 8.19.1. hammer follow, and
 - 8.19.2. malfunctioning safety catch.
- 8.20. **Revolvers.** A revolver with play in the fore and aft movement of the cylinder, or with excessive rotational play in the cylinder.

Note. It is peculiar to revolvers occasionally to spit lead to the side, even in good working order.

Reloading

- 8.21. **Introduction.** Range Officers should be familiar with the common principles of reloading, in particular common mistakes in reloading. Range Officers should also be familiar with the calibres normally encountered on the range. This is because the Range Officer may have to declare a competitor's ammunition unsafe and should have some knowledge of reloading.
- 8.22. **Advice.** A Range Officer who is not perfectly familiar with the load for a particular calibre and bullet weight should under no circumstances advise a competitor on reloading the cartridge but refer them to an experienced reloader or to the reloading tables.
- 8.23. **Chronograph.** Although the Range Officer might not be expert in identifying a heavy load by sound and by pressure signs on a fired case, he should know the formula to compute F factor ratings and the use and operation of a chronograph. Every Range Officer should make a point of running the chrono at a major match for the wealth of experience gained from it.
- 8.24. **New Reloaders.** When a member starts reloading, the Range Officer should by way of a friendly, informal chat satisfy himself that the new reloader does adhere to the safety rules for reloading.
- 8.25. **On the Line.** On the line the Range Officer should be alert to:
 - 8.25.1. Overloads.
 - 8.25.2. Uncharged rounds.

While the experienced competitor will probably immediately detect this, the inexperienced competitor will not and the Range Officer should be alert to this potential problem and stop a competitor immediately he notices a problem. Always watch for the competitor who lowers his firearm with a puzzled expression.

Holsters/Bags/Cases and Equipment

- 8.26. **Transport and Carry During a Match.** Most competitors transport their firearms in a bag or case. In any match the firearm is readied in a Safety Area. Handguns are then carried in the holster that serves as a safety device. Rifles and shotguns are cased or bagged immediately after finishing the stage, preventing competitors tampering or playing with them between stages, or slung vertically, or shouldered vertically, muzzle skywards. It is mandatory that a chamber safety flag be inserted in rifles and shotguns after the last range command "Open Action".
- 8.27. **Safety.** Holsters must be practical and safe. The holster should hold the pistol firmly in position at all times. The Range Officer is entitled to check a holster at any time during a match. Bags, slips or cases must similarly hold the firearm safely and securely.
- 8.28. **Equipment Check.** Holsters, trigger pull and equipment for Standard, Classic and Production Divisions should be checked before a match starts. Identify a specific Range Officer for this, preferably one who knows what to look for. See the Appendices to the IPSC Competition Rules for the detail per Division.
- 8.29. **Holster and Equipment Position.** Range Officers must particularly note the position of holsters and allied equipment that they comply with the Rules. Do not hesitate to request a competitor to rectify any such equipment before he starts the stage. Do this consistently from the Level I Match up to Level V Matches.
- 8.30. **Rules.** For a detailed description of the holster/bags/cases and similar equipment rules, see IPSC Competition Rules Chapter 5.