

FOREWARD

Over the past few years I have attended 3-D archery shoots throughout much of southwestern Ontario and Nova Scotia. Generally, all of these events were run along similar lines and all achieved their aim with varying degrees of efficiency. As I gained experience as an archer I began to compare the organization and execution of the 3-D events I attended to my own experiences running training ranges for the Canadian Forces. I discovered differences of course, but I also found large areas of similarity. This prompted me to consider writing a handbook which could help an archer, whether new to the sport or experienced, or a club, set up and run 3-D courses effectively.

Generally, archery 3-D courses are set up on a piece of land (hopefully large enough for safety) with targets and shooting lanes sited to provide varied and interesting shots. On some of the courses I have shot, considerations of safety regarding trail placement, movement of archers and arrow flight have seemed to be secondary to the placement of targets. More likely, these situations probably occurred because of poor appreciation for arrow flight characteristics and the diverse levels of experience archers bring to club courses and open shoots. Not everyone hits their intended point of aim on every shot. It is for this reason that safety must be a design element in 3-D course construction.

As an infantry officer, it has been my responsibility to organize and run training ranges for various weapons. To do this, I was trained to follow basic procedures that lead to the development of efficient and safe ranges. These ranges do not harbour surprises for anyone with similar training. While the army's weapons may range farther than a bow, the bow's lethality deserves similar care in its training and use. In this Guide I will begin with basic aspects of arrow flight, develop safety considerations for 3-D archery courses and add some of my own observations on the design and conduct of 3-D archery events.

Although this Guide concentrates mostly on the design of 3-D courses, its contents, in whole or in part, will be applicable to the design of any archery field range.

INTRODUCTION

In trying to develop a system for the design of 3-D archery courses, I had to consider a wide variety of factors. I began by examining and keeping notes on the shoots I attended, comparing them to identify what was being done well and what could be done better. Slowly, I began to see the components which comprised each course as distinct elements, such as the use of the available land, the conduct of the shoot, and details such as signs, markers and scorecards. Each of these could be examined separately from the others to identify the factors which made it effective, or less so.

I began to examine 3-D archery as a sport within a sport. It became apparent that it would be necessary to identify the aim(s) of 3-D archery before a critical examination of courses and ranges could be made. Who is attracted to 3-D archery? Why do they participate? Many people shoot 3-D, for many different reasons. If I could identify some of the common themes it will present a solid start point from which to determine range structure requirements.

Watching and talking to archers I saw at various 3-D events has led me to identify the following themes within 3-D archery;

- A. 3-D archery is an archery sport in its own right and deserves specific attention and support.
- B. 3-D archery is a target sport, the reasons archers shoot 3-D are diverse and individual, 3-D archery must be promoted and developed on its own merits.
- C. 3-D archery originated as, and still is, a practice forum for bowhunters.
- D. 3-D attracts large numbers of non-hunting archers and must meet their needs also.
- E. The conduct of 3-D archery events should match national standards, to support the progression of archers who might compete in regional and national competitions.

National standards - bowhunting practice - non-hunting archers - target sport. Are these not contradictory? At first glance some may appear to be, but not necessarily.

NATIONAL STANDARDS.

In 1992, the Federation of Canadian Archers (FCA) developed a set of rules for a Canadian national 3-D round. These rules were put together by experienced archers and bowhunters from across the country and standardize 3-D competitions for archers who might someday go on to greater heights. Examination of these rules shows that they are not restrictive, except that they lay out exactly how the National Championships will be run. Individual clubs can still follow locally established rules though essential elements of the common FCA rules should be observed.

Scoring systems should be consistent, this is obvious to anyone who has tried to compare their individual scores between clubs using different scoring systems. Widely different scoring systems make it pointless to compare scores from different courses. A common scoring system means archers can easily track their own progress.

The FCA 3-D round identifies four age groups, seven equipment classes and (of course) two genders for a total of fifty-six possible classes. Rigid adherence to this at the local club level is impracticable and unnecessary. For most open club shoots, single classes of Cubs (under 13), Cadets and Juniors (14-17), traditional archers (recurve and longbow) and Senior Ladies can reduce this to about eight classes. Identifying equipment types or ages on the shoot tally board within the grouped classes can allow archers to make more accurate comparisons of their progress.

The FCA 3-D round calls for three sets of twenty targets with one arrow per target. This is obviously outside the resources of the average club and is only necessary for national championships. Most clubs use two trips around a single twenty target course with two or three arrows per target. For club shoots, this is preferred by most archers. It offers better practice and is more enjoyable.

Standardization in sport is a good thing. It will ensure our better archers are prepared for national competition. But do not consider the national round rules as a set of Commandments to be inflicted on provincial clubs. Clubs have other goals also and a happy medium can be found.

BOWHUNTING PRACTICE.

3-D archery started as a practice sport for bowhunters. It still is. The new FCA rules support this origin of the sport. Requirements on shot visibility, maximum distances and equipment limitations (in all classes except Unlimited) meet bowhunting practice requirements. The majority of 3-D shooters are still bowhunters.

NON-HUNTING ARCHERS.

Greater numbers of archers who do not hunt are becoming involved in 3-D archery. This is not a contradiction. 3-D is an interesting and challenging archery sport which is less structured than FITA target archery. Regardless of individual reasons for participation, the origins of 3-D as bowhunting practice must be balanced against the sporting desires of the non-hunters.

3-D ARCHERY AS A TARGET SPORT.

3-D archers shoot at targets. These targets are formed of plastic and happen to be shaped like animals. No blood is spilled and everyone goes home satisfied that they have gained from practising their chosen sport. These aspects of 3-D help explain why a greater number of younger archers and women are participating in 3-D. Flip through any archery magazine today and you will see bows purpose designed for 3-D target shooting, articles dealing with optimizing equipment and shooting skills for 3-D and interviews with high-calibre 3-D shooters. All of these high-profile indicators show that 3-D is being recognized as a separate target archery sport throughout North America. Care must be taken, however, to ensure that these groups' desire for more stringent target competition does not compromise the goals and standards of 3-D.

In this Guide I will explore each of the elements which make up a 3-D archery course and the shoots run on them. Briefly, the topics covered in the Guide are outlined below.

Arrow Ballistics - The area required for safety of a 3-D course is based on an examination of arrow ballistics, the Guide will explore the basic principles.

The Archery Course - With a fundamental understanding of arrow flight, the Guide presents a system to design a 3-D course based on these principles.

Mapping the Course - The Guide presents a simple method of mapping an archery course. This offers a means of checking the overall safety of a design and a way to create an accurate map for presentation of the club course.

Assessing the Course Design - Any 3-D course design should be subjected to a consistent assessment to ensure it meets all the requirements for the safety of the archers who will be using it. The Guide presents a simple system to check any 3-D course.

Features - The Guide looks at some of the aspects which make unique and interesting shots along a 3-D course. Where appropriate, design and construction are discussed.

Signs and Symbols - Target numbers, trail markings and shooting station flags all form valuable parts of a safe and easy to follow 3-D course; the Guide will examine the options for these and other course accessories.

Putting the Course to Use - The Guide presents a simple format for pre-shoot briefings and explores the options for designing an effective scorecard.

The Shoots - With an established and safe 3-D course, many clubs have difficulty in creating shoots that meet the needs of all the archers that want to participate. The Guide offers a series of shoot formats, each with an explanation of the applicable principles.

Supplementary Issues - Examining some of the issues other than shooting that effect a course, the Guide looks at planning for medical emergencies, care of the environment and care of club property.

Annexes - Supporting annexes are included at the back of the Guide presenting the FCA Canadian 3-D Round Rules, and an examination of the formulae and math employed to generate the safety factors the Guide uses.