



Murwillumbah Rifle Club

Introduction to Fullbore Target Shooting

Fullbore Target Rifle (T/R):

Fullbore can trace its origins back to the reign of Queen Victoria during the 1860's when, in an attempt to improve the ability of Britain's marksmen, she inaugurated the Queen's Shoot with a first prize at the time of £250. Much has changed since that event, but the Queens shoot remains today.

Modern Target Rifle (T/R) evolved from Service Rifle (now S/R or Military) during the '60s with the adoption of the NATO 7.62mm or .308 cartridge by Australian and international militaries. In its earliest days Aperture or "Peep Sights" were fitted initially to the SMLE No. 1 .303's and later to the SMLE No. 4 .303's. With the shift to the .308 in Australia, existing supplies of .303 ammunition were transported out to sea and dumped. Handloading was not in common practice at the time so people couldn't continue to use their SMLE's and were forced to adopt the 7.62mm or .308. The Omark rifle was produced in great numbers to enable shooters to adopt the new cartridge and it's 144gr bullet.

Today T/R involves prone shooting of single shot rifles chambered in .308 and .223 calibre using aperture iron sights at targets ranging in distances from 300 to 1000 yards.

Course of Fire:

The standard course of fire for our club is 2 details. Round 1 consists of 2 sighters and 10 scoring shots. Round 2 consists of 2 sighters and 11 scoring shots. Good sighters can be kept as scoring shots. The absolute centre of the target is scored as a V with 5, 4 and 3 and 2 rings present on the target. Typically, the remainder of the target area is considered to be worth 1 point (a hit) but this does vary from target to target. The maximum total of 50.10 (Rd 1) and 55.11 (Rd 2) points per detail with a total of 105.21 points being the highest possible total for both details

On paper targets (current method) for each shot fired, the target is pulled down and the shot marked then raised so the shooter can observe where the last shot landed and the scorer can record the score. In the future, with the switch to electronic targets on the agenda for our club, there will be no delay in marking the targets. The shots will appear on the shooters screen just a few seconds after the bullet hits the target.

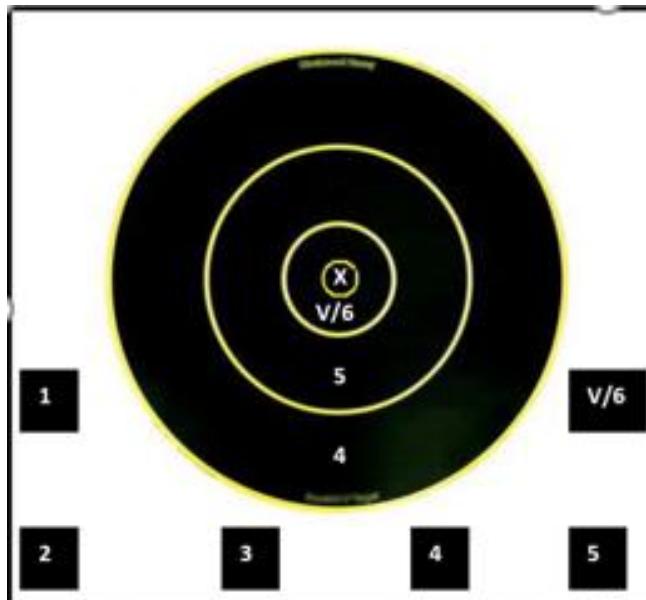
As a club we take turns to shoot on one or more targets (depending on numbers). Because our club has both F-Class and T/R shooters and the targets are the same for both disciplines, the F-Class and T/R shooters all shoot together.

Targets:

The targets vary in size for each distance but do so in a way that doesn't significantly alter their appearance to the shooter.

MODIFIED ICFRA			Distances in Yards			All Dimensions in millimetres			
Yards	Appendix	Aim	Super V (X)	Centre	Bull	Inner	Magpie	Outer	Hit (Score 1)
300y		560	32	65	130	260	390	560	ROT – 1200x1200
400y	D3.1	746	43	86	173	346	520	746	ROT – 1200x1200
500y		915	65	130	260	600	915	1320	ROT – 1800x1800
600y		915	72	145	290	600	915	1320	ROT – 1800x1800
700y	D3.1	1000	80	160	320	660	1000	1320	ROT – 1800x1800
800y		1120	127	255	510	815	1120	1830	ROT – 2400Wx1800H
900y		1120	127	255	510	815	1120	1830	ROT – 2400Wx1800H
1000y		1120	127	255	510	815	1120	1830	ROT – 2400Wx1800H

ROT = Rest of target



Value:	X	V/6	5	4	3	2	1
Name:	Super V	Centre Bull	Bull	Inner	Magpie	Outer	Hit

Target indicators: **Colour of Spotter** (where your shot lands & is marked on target):

- V/6, 4, 3, 2, 1 = RED spotter
- X (X known as a 'Super V') & 5 (Bull) = WHITE spotter

Target indicators: **Colour of Marking Disk** (numbers & letter around bottom section of target = score value):

- V/6, 5, 4, 3, 2, 1 = BLACK disk
- Only exception – X (known as a 'Super V') = RED disk (Red disk placed in same position as V/6 on target)

What's a V?

Many will argue this, but the principals hold true... The accuracy of the target rifles with their open peep sights is such that the 5 ring is intended to be the highest scoring ring. For open sights the innermost circle is considered to be too difficult for T/R shooters to hit repeatedly but it does provide a good mechanism for count outs when shooters tie on points alone.

What's a Super V?

The Super V (X on target diagram) is an F-Class scoring ring. It's marked as a V in T/R. It's listed here because it's visible on the targets.

Example: Three shooters shoot a single detail of ten shots with the results shown in the table.

	1	2	3	4	5	6	7	8	9	10	Total
Shooter A	5	V	V	V	V	V	V	V	V	4	49.8
Shooter B	5	5	5	V	5	5	5	V	5	5	50.2
Shooter C	5	5	V	V	V	5	V	4	5	V	49.5

From these results shooter B wins with 50 points and 2 V's. Shooters A and C are tied on 49 points but Shooters A's total V count of 8 V's puts them second.

There are pro's and cons of this system, but it works. The greater importance of not scoring 4's as opposed to getting V's makes T/R slightly more cerebral during big matches like the Queens shoot.

Basic Equipment Needed:

- Rifle chambered in .308 or .223
- A set of foresight rings (or an adjustable)
- A rear Aperture sight (peep sight)
- Shooting Jacket
- Sling
- Glove
- Shooting mat
- Spotting scope and stand
- Gun Case or Bag
- Ammunition
- A range box or some other way of carrying your gear.
- Ammunition case. (e.g. MTM cases. For non reloaders it saves messing around with boxes of ammunition on the line).
- Ear muffs (plugs might seem ok if you're planning to shoot a .223 but the guy right beside you might be shooting a .308)
- Cleaning accessories
- A good hat & bottled water

When you want to purchase a rifle:

- DO NOT go to a gun shop. All rifles that are competitive are custom made using components that are specifically designed for the task at hand from a very specific list of licensed smiths.
- Our accurate rifles are not bought off the shelf – despite what the gun store owner will say to you!!
- Please don't hesitate to ask our valued members for assistance/advice on this matter. We will offer greater direction for your requirements.
- As helpful as the Internet can be, it has been the vain of our existence on a rifle range. The wrong information can send people in a direction that can end up in disaster, in money and equipment.

Before you take the sport up you must leave your preconceptions and what “the internet said” at the gate and understand that the difference between a “Long Range Target Rifle” and a mass-produced rifle are imminence and cannot be compared. While some rifles start off based on the big manufacturers, they always end up being re-built substantially to compete.

Common Pit Falls

- Situation:-The local gun shop said this “insert common sporting/tactical rifle brand here (yes all of them) would be fantastic for target shooting!”

Result:- most sporting and “tactical” guns will not perform at long ranges getting beyond 400yards, they lack a manufacturing tolerances to sufficiently hold the group be it in the barrels or the bedding systems used.
- Situation:-The local gun shop said this “insert common sporting/tactical/scope/mount brand here (most of them) would be excellent for target shooting!”

Result:- most often the shops version of target shooting is 100ynds/m from a bench, most commonly available scopes and bases lack the total elevation required to get you from 100ynds to 1000ynds (40moa) let alone do it accurately.
- Situation:- I got this ammunition from “insert commercial gun shop here (most of them) it is the best you can buy.”

Result:- the ammunition will in all cases exhibit substantial differences in velocity's resulting in a group in some cases not on the target or at best 2 moa (minutes of angle) note that the Bullseye is nominally 2 moa, add in most shooters hold at best 2moa, in total you have a 4moa group. Ammunition from the NRAA/QRA and its affiliates is substantially better and can be sourced from the Club or association. However, for the best performance at the long ranges hand loads are the only way.
- Situation:- "I got this ballistics app from the Internet it's so good."

Result:- No its not. It will send you off in a path of pain and suffering and general confusion. They are a guide only, and to be honest a sketchy guide from fullbore members still holds water today!

So how do you overcome these issues?

In short, turn up at our club each week as members are willing to show you how. Save your hard-earned cash until you have figured out what you want, be it scope or open sights. Most guys on a Fullbore range will not shut up about their kit and many will even let you have a go!

Again, fullbore members at Murwillumbah Rifle Club will offer greater direction for your starting requirements.