
CAP COAST GUNSMITHING • FREE GUIDE

The Three Reasons You're Missing at Distance

Simple pre-shot checks that reveal the problem — before you waste another round

From the gunsmith's bench: the same problems I see every week — explained clearly and fixed properly.

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Safety first, data always, ego never.

BEFORE WE START

It is usually not the rifle

I am a gunsmith. I have been working on precision rifles for many years, and the number of times someone has sat across this bench and said some version of the same thing is beyond counting.

“It won't group.” “I can't get consistent hits past 400.” “I don't know if it's me or the rifle.”

In the majority of cases, it is not the rifle.

This guide covers the three problems I see most often — and more importantly, the **checks** that reveal them. Things you can do on the range to narrow down exactly where your problem actually is, before you burn through more ammunition chasing the wrong fix.

I built a 12-hour structured long range programme because these three things are just the beginning. But they are the right beginning. And they are free.

Read slowly. Do the checks. Be honest with yourself about what you find.

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— Loz Hemmings, Cap Coast Gunsmithing, Yeppoon

ISSUE ONE

You Are Not Shooting from Where You Think You Are

The problem: ignoring natural point of aim

Most shooters set up their position around the target — they get behind the rifle, find the target in the scope, and shoot. The body does what it needs to do to get the reticle on the target.

The problem is that the body remembers. Every small muscular tension, every slight rotation, every compensation you make to hold the reticle in place — your body treats these as normal. And when you pull the trigger, those tensions affect the shot.

Natural point of aim is not where your reticle is pointing. It is where your body wants to point the rifle when there is no muscular effort at all. These two things are very often not the same — and at 600 metres, that fight is the reason you are pulling shots in one direction and cannot work out why.

THE CHECK — 30 SECONDS

Get behind your rifle in your normal position. Settle in completely. Put the reticle on your aiming point.

Close your eyes. Take one slow breath in, breathe fully out, and let every muscle relax completely.

Now open your eyes. Where is your reticle? If it has moved, that is your natural point of aim telling you where it actually wants to be — the direction shows how your body is compensating, the distance shows how much.

The fix

Do not adjust your scope or your grip. Move your **entire position** — hips, support, everything — until the reticle sits naturally on target with zero muscular effort. Close your eyes and test again. Repeat until it does not move. This is a pre-shot discipline, not a one-time fix.

→ *Natural point of aim, positional setup and the pre-shot routine are covered in full in Module 9 of First Round Effect.*

ISSUE TWO

You Are Moving the Rifle When You Fire It

The problem: trigger snatch and flinching

Flinching is not a character flaw. It is a learned response. Your body has noticed — correctly — that pulling the trigger makes something loud and forceful happen, and it has begun to react fractionally **before** it occurs. The flinch precedes the shot. The rifle moves before it fires. You miss.

The insidious part is that most shooters do not know they are doing it — the movement is tiny, it happens in the instant before the rifle fires, and the recoil hides it. Trigger snatch is the mechanical version: grabbing or rushing the press instead of a smooth, progressive break. Both are common, both are correctable, and both are invisible until you check for them.

THE CHECK — ONE DUMMY ROUND (SNAP CAP)

Load one dummy round somewhere in the middle of your magazine — fifth or sixth is ideal — without watching which position it takes. Forget it is there and shoot normally.

When the firing pin falls on the dummy and nothing happens, **watch what your rifle does.**

If the muzzle dips, if the rifle rocks forward, if anything moves at all — that is your flinch. It was happening on every live round; the recoil simply masked it.

The fix

Slow the whole sequence down. Dry-fire (use a snap cap if it's a rimfire) with a deliberate, conscious press — learn exactly where your trigger breaks, and build a press that is progressive and consistent with no anticipation. Use the snap-cap check regularly to keep yourself honest; improvement is measured by how little the rifle moves when the dummy fires.

→ *Trigger mechanics, the mental reset and a consistent firing sequence are covered in full in Module 9 of First Round Effect.*

ISSUE THREE

Your Optic Is Not Set Up Correctly

The problem: parallax, eye relief, and a reticle that floats

The scope is often the last thing a shooter questions. It is frequently the first thing that should be checked.

Parallax is the most misunderstood variable in long range shooting. If your scope is not focused at the distance you are shooting, the reticle and the target sit on different optical planes — so a movement of your head of even a millimetre shifts where the reticle appears on the target. At 100 m it is small and unnoticed; at 600 m that same head movement is a miss that looks like a pulled shot. You blame your technique. The scope was the problem.

THE CHECK — NO EQUIPMENT REQUIRED

Mount your rifle and look through the scope at a target at distance. Put the reticle on a specific, defined point.

Move your head slightly — a gentle forward and back, then side to side.

Does the reticle stay exactly on that point, or float across the target as your eye moves? If it floats, your parallax is not set for that distance — and every shot, taken with your head slightly different, prints in a different place. You are not inconsistent. Your setup is.

The fix

Adjust your parallax dial (side-focus or objective ring) until the reticle is locked to the target regardless of small head movements. The distance markings are often approximate, so verify them — and remember the setting must change as your distance changes. A parallax set for 100 m is wrong for 600 m.

→ *Scope setup, reticle subtensions, parallax verification and confirming your scope actually tracks are covered in full in Module 3 of First Round Effect.*

WHAT THESE THREE THINGS HAVE IN COMMON

Stop assuming. Start checking.

None of them require new equipment. None of them are about the rifle. All three are invisible until you check for them — and completely obvious once you do. The long range discipline rewards precision in everything: your position, your trigger press, your setup, your data. Not perfection — precision. And it starts with knowing where your actual problems are before you try to solve them.

Every shooter I have seen improve significantly got there the same way: they stopped assuming and started checking.

These three issues are the beginning.

First Round Effect covers 25 modules across 12 hours of structured, interactive, metric-based eLearning — built from the questions that walk through a gunsmith's door every week, to the same professional standard used in compliance training for high-risk industries. It is built for metric and Australian conditions in a way the US-centric content out there simply isn't.

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Questions? Email info@capcoastgunsmithing.com.au — answered by the gunsmith, not a support desk.

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#FirstRoundEffect

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Built in Yeppoon. Designed for everywhere that shoots in metric.