

with Richard Mellon

## **BACKYARD BALLISTICS**

**TUBE GUNS** 





ol. Townsend Whelen is credited with the now famous quote that goes, "Only accurate guns are interesting." Today, the Colonel would find much to

be interested about the latest rage of the range, known generically as the Tube Gun.

It started in the 70's with enthusiasts of the AR15 platform searching for more accuracy.

The first modifications were to get rid of the lightweight, flexible plastic stock of the military AR. The plastic was replaced with aluminum for weight savings. As the tinkerers forged on, shooters started winning competitions with the strange guns. Then bolt actions replaced the semi auto AR action and the rifles crossed over into F Class, especially the Palma discipline and then found a home in Across the Course (XTC) competition.

XTC is shot with open aperture sights and requires fast target acquisition, reloading and firing. Many claim the tipping point occurred about 12 years ago when David Tubb, competition rifleman extraordinaire and winner of a record eleven NRA National High Power Rifle Championships, started manufacturing his own version of the tube gun.

Perhaps the most popular make on the market is the Eliseo brand. Gary Eliseo started with a background in service rifles. Ten years ago, he started puttering on his own rifle in his company's shop that manufactured just about everything, except guns. As with all truly inspired and well-designed products, his rifle came from his passion for the sport rather than a business plan. His tube gun's stock and frame really is a tube of 6061 aluminum. The action bolts in place with two receiver screws through the trigger guard/magazine/pistol grip assembly. Four additional brass set screws are used to tighten the frame to the



The two left side action set screws. These screws help lock the action and frame together.

receiver. There are two at the front and two at the rear of the action, about half way between top dead center and the horizontal bore line of the frame on each side. These set screws are tightened uniformly against the action inside further supporting it and making it incredibly rigid. Rather than being a structure to simply hold the action, the stock is an integral component of the rifle's foundation.

Without the limitations of mating an action to a conventional stock, Gary was free to think outside the box. Standard rifles have a single recoil lug at the front and bottom of the receiver. All the recoil energy pulse is focused at a single point in the circumference of the receiver and creates stress, which leads to flex. Flex in itself is not bad, as long as it is consistent. If the harmonics and flex repeat



exactly the same each shot, the rifle remains highly accurate.

All that pounding from the recoil lug has to go somewhere and it is the bedding that bears the brunt of it. In a high volume shooting sport like XTC, bedding doesn't last long before it is literally kicked loose. It doesn't take much slop at 600 yards to go from hero to zero.

With the receiver encased in the tube, it was a Darwinian evolution that the recoil lug could also be round, mated to and supported by a circular ridge in the frame and spread the recoil out over the entire 360 degrees.

Combine all the innovations and the result is a very rigid action that recoils straight back rather than lifting the muzzle. Inline recoil is so much more predictable than the torque and stress it takes to launch that rifle skyward with every squeeze of the trigger.



## The removable magazine.

When I was handed my test gun, I was struck first by its futuristic looks. Chambered in .243 Win and topped with a Huskemaw Blue Diamond 3-14 x 42 scope, and with a bipod slung off the front sling stud, the rifle weighed in at 10 pounds 12 ounces. This rifle is built on the Lightweight Hunter model and is designed for Remington clone actions.

The butt stock is removable and interchangeable. Eliseo makes a variety of butt stocks that are adjustable for length of pull, cast off, drop and adjustable cheek piece. The butt stock is also the bolt stop. Remove the butt stock and the bolt slides out of the action.

This rifle has a Defiance custom action. The Mutant is the model name and it is specifically built for the Eliseo frame. The round receiver starts out at a chunky 1.470" diameter so that the recoil disk can be integral to the receiver with the rest turned down to the standard 1.350". The Mutant action has a spiral-fluted bolt and is carved from stainless steel. A match grade Pac-Nor barrel and a Rifle Basix trigger round out the package.

Out on the range, the rifle quickly lived up to its press. It felt solid, stable, and predictable when I squeezed the trigger. Round after round stuffed into the same tiny hole at 100 yards.

The rifle was built as a varminter in .243Win because it can whip heavy, high-ballistic



coefficient bullets up to 3000 ft/s mark. The 243 will push the 95-grain VLD to 3104 ft/s and the Hornady 105 A-Max to 3000 ft/s.

Wind is a coyote's best friend. The 105 A-Max gives up 700 ft/s in muzzle velocity to the 55 grain 22-250, yet has nine inches less wind drift at 500 yards in a five mph wind!

It was time for a real world test and the morning I chose had a cold wind out of the west. My eyes were tearing up as I listened to my electronic caller screech through its repertoire. I was decidedly uncomfortable from my last cup of coffee and thought forlornly about a warm bathroom break. "What the heck!" I thought, and crawled out from under my deck stairs and went into my house though the patio doors. As I was running hot water over my hands to warm them, motion out in the field caught my eye. A wily coyote had hoped to catch me with my pants down! I jammed my toque down over my ears, slid out the side door, and slithered around the corner of the house. He was still there! I ranged him

with my Zeiss RF binos, 762 yards. I slid a cartridge into the chamber and waited. The caller started screeching again and he came on the trot. I ranged several landmarks along his projected path. A tuft of grass was 612 yards, the dirty snowdrift 540... As he neared the tuft, I cranked the Huskemaw turret to 625 yards. The caller shut off and he hit the brakes so hard I saw snow flung up in the scope as he turned 180 degrees and looked back over his shoulder. Something had spooked him and he was about to book it out of there. I rocked the rifle back and forth to settle the bipods in the snow. A quick mental shake of the head to clear it, then I held 4 minutes of wind in the scope and squeezed the trigger.

The muzzle blast raised a maelstrom of snow in front of me just in time for a gust of wind to blow it back into my face. When it cleared, the results of the big bullet were obvious.

The adage is true, accurate guns are interesting. In fact, this gun is so interesting, I'm not ready to return it to Rod at Corlane's just yet...

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