THE WEATHERBY 30-378 TRR DESERT MAGNUM. (*Updated 30.9.06)

Stuart Anselm puts on a brave face for the camera!

The TRR stands for 'Threat Response Rifle' and it certainly qualifies for that title! Personally, I prefer 'the beast!'

Now although I don't consider myself to be recoil-shy, when I looked in the reloading-manual and saw that the case-capacity of the 30-378 was around 120 grains, I confess - my enthusiasm for this rifle waned a little. I must admit that I was totally unfamiliar with the 30-378 cartridge. I assumed that it's prime purpose was to knock-down extremely large animals – but no – this cartridge came about as a result of a collaboration between Roy Weatherby and the US Army, who were looking for an 'extreme' anti-personnel weapon.

The cartridge was actually developed way back in 1959 and is of course based on the 378 Weatherby case. The round-shoulder is the unique feature of Weatherby cartridges and the 30-378 is no exception. This really is an enormous case that makes Lapua's 338 Magnum look positively wimpy. Photo below shows the 308 Win. for comparison. The so-called 'desert camo' doesn't look too out of place in a woodland setting.

These massive cartridges are fine to shoot provided they are housed in a suitably heavy rifle but the TRR is quite light with its composite stock and spindly, fluted barrel. OK, it has a muzzle-brake (Accubrake) but it doesn't look beefy enough to be really effective. Spindly? The 26 inch barrel is 1.25 inches diameter at the breech but swamps down to just 0.716 inches at the muzzle. Barrel is by Criterion, a division of Krieger and is made of 410 stainless steel. Action and barrel are coated with a tough but attractive matt-black titanium-nitride finish which is ideal for a tactical-style rifle.

Note aluminium bedding-block

When I took the barrelled-action out of the synthetic stock, I was surprised to see a moulded-in aluminium bedding-block. Clearly, there is more to this stock than just a funny cammo. paint-job. Like many tactical stocks, the designer was unable to resist the temptation to ‘militarize’ it, whilst missing out on a few ‘must haves’. Nontheless, most shooters will get on with this rifle as pull and cheek-piece can be adjusted but I would have kept the underside of the butt completely flat for use with a rear bag and put a bit more ‘beef’ into the fore-end. It does however have an Anschutz-type accessory-rail built into the fore-end, so handy for attaching a bi-pod and other accessories.

The action is the familiar Weatherby Mk 5 that has been around for almost 50 years and features a large diameter bolt with nine locking-lugs of the same diameter, arranged in three sets. This gives a bolt-lift of 56 degrees. We read a lot about short-throw bolt-handles but why is this coveted? The two-lug Remington is 90 degrees but so what? In terms of operation, this means lifting the bolt-handle an extra half-inch or so. Wow! The bolt has eight straight flutes running longitudinally which will help smooth operation a little by reducing the surface-area and also providing a receptacle for an extraneous matter which might find its way into the action. There is a conventional plunger-ejector in the recessed bolt-face and extraction is via a traditional claw. There are three large vent-holes in the bolt body which will direct gases out of the ejection-port and away from the shooter in the event of a ruptured primer.

Note safety on bolt-shroud, robust trigger and vent-holes in bolt.

The receiver is circular and is 1.35 inches in diameter. There is an enormous cut-out in the underside for the two-round box-magazine and a built-in recoil-lug – a much better option than trapping the recoil-lug between barrel and receiver. Unfortunately, the rifle didn't come with a scope but we do have a set of dedicated rings and bases which are quite impressive and clearly, the designer had previous experience of scopes moving under recoil! I was tempted to install one of Fox Firearm's ZOS scopes but thought better of it and went for a 3.5-10 Leupold Mk 4 - not ideal for group-shooting but clearly, strength is paramount with a cartridge of this magnitude and the Remington 700 action for example could never handle a round of this size.

The Weatherby Arms Company has had a somewhat chequered career when it comes to manufacture. Initially they were made in America but then production was switched to Germany and then Japan – which is why some Weatherbys look very similar to Howas – or is it the other way round? Anyway, our rifle, based on the Mk 5 action is now made in America once more. Quality-wise, the action has a nice 'custom' feel to it – that 'knife through butter' feeling as you close the bolt – but not when you open it! The borescope revealed that the button-rifled barrel and chamber were also well finished internally.

Yes, at last we are getting close to shooting the beast but for one small point – no ammo - but we do have 20 brand-new Weatherby cases. Time to consult the manuals. I also needed a set of dies and approached North West Custom Parts, www.nwcustomparts.com who are agents for the vast range of Midway products. I was impressed - NWCP had an RCBS die-set for me in a little over a week.

As regular readers will know, I like to test rifles in competition if possible and with a UKBRA 1000 yard benchrest competition only days away, I loaded up our twenty new cases with a massive 116 grains of Vit 170 powder and Sierra Matchking bullets. As I was already down to shoot my own Light Gun, I decided that it was time for Stuart to see the error of his ways and give the beast its competitive debut. Of course, we weren't sighted-in for 1000 yards but after bore-sighting and using Vihtavuori's muzzle-velocity data and my ballistic programme, we took a

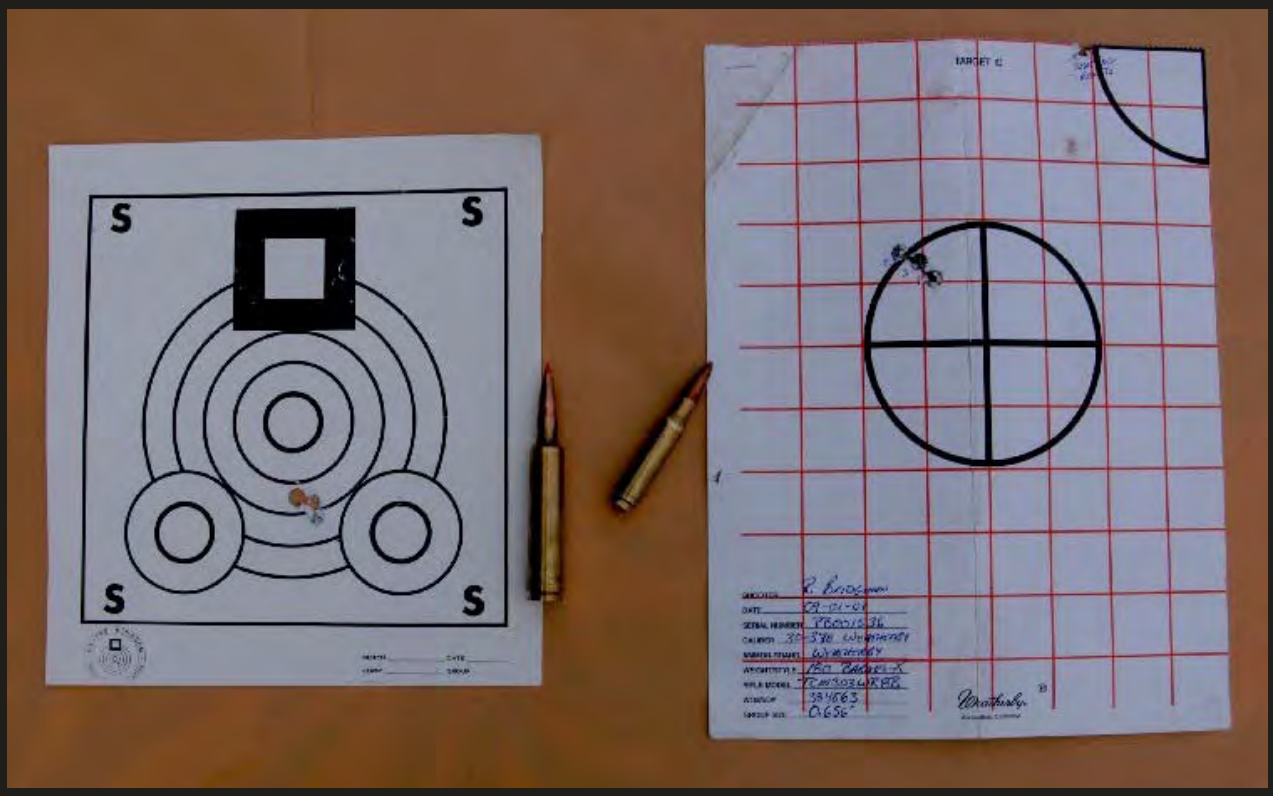
stab at our elevation settings which proved to be pretty well spot-on – just 19 MOA up from our 100 yard zero. Compare this to a 308 Win. which would need more than double that using the same bullet.

Although our elevation was spot-on, lack of testing revealed that we were a long way off an accuracy-load and after one attempt at a group, Stuart abandoned the test. Accuracy was abysmal – but surprisingly, recoil was tolerable - that tiny brake was clearly effective. The trigger broke quite cleanly at 2.75lbs and is adjustable but this is a rifle where a really light trigger is not desirable – you need to be sure of a snug hold on that stock before you make the decision to ignite 100 plus grains of powder!

So it's back to the reloading-bench but first, how to pull those now useless rounds as the 30-378 case is just too fat to go in a conventional kinetic bullet-puller! After fruitless attempts with collet-pullers etc. it was time for some drastic action. The shell-holder was gripped in my lathe-chuck and the bullet in my Jacob's chuck mounted in the tailstock. I just managed to wind-out the bullets without spilling too much of my precious powder. Needless to say, the Sierras were scrap.

After running all the cases through the full-length body-die, I tried another load using a 185 grain Lapua Scenar bullet and again the Vit 170 powder. Initial tests again revealed disappointing results at 300 yards (two-foot groups!) and I was beginning to think that the beast had some inherent fault and we would never get it to group. Having said that, we had the factory 100 yard test-target supplied with the rifle, showing a three-shot group measuring just 0.656 inches. Unfortunately, there was no supplied loading-data other than that 180 grain Barnes bullets were used.

OK, back to basics and 100 yards. We'll try a new powder, this time Hodgdon's H1000 – I used this in my 300 Norma Magnum. And we'll try some Hornady 178 grain A Max bullets. Our starting load was 110 grains and we were soon shooting three-inch, three-shot groups at 100 yards! Three shots means a massive 330 grains of powder burnt in the barrel – the equivalent of 7 or 8 shots with a .308. We were wrapping a wet towel around the barrel to cool it between groups! Shooting from a covered firing-point is really anti-social – the blast from the muzzle-brake almost lifts the roof off and elicits a stream of un-printable expletives from fellow shooters.



Left - our final group measuring 0.398 inches. Right, the factory test target 0.656 inches.

We dropped the powder-charge by grain or so at a time and at last, the groups began to shrink – two inches, one inch and then, our best of the day – a stunning group measuring just 0.398 inches. It was a great relief to get a result and finally tame the beast. When we chronographed our load, it was pushing the 178 grain A Max at a satisfying 3200 fps – nicely within the muzzle-velocity for most ranges though well below this cartridge's potential.

The Weatherby TRR (Threat Response Rifle) is now safely back in its cage at Garlands. It's for sale - complete with dies and test targets - for anyone brave - or foolish - enough to take up the challenge.