



PARD TD32-70 HYBRID SCOPE

WRITTEN BY ~IAN GUNN

The TD32-70 mounted on my Bergara BMR in 17HMR

My introduction to the world of night vision began quite inadvertently

I had recently replanted a block of grapevines and one morning I was greeted with a scene of carnage. Shredded plastic spray guards, splintered bamboo stakes and vines chewed right down to bare stumps. The height the bamboo had been chewed led me to think it was probably hares

Looking around that evening I saw a couple of likely suspects and managed to get one with my PCP air rifle. A lack of success with spotlight and PCP led to me borrowing a thermal monocular from a friend and that was a bit of a revelation as to how easy it was to spot the various critters running around and how many there were. The number of hedgehogs, rats, mice and hares was rather surprising.

Spotting them was one thing but doing something about it was another. Taking the thermal down to the block one night I saw three hares in amongst the young vines so went back and got spotlight and rifle. Getting myself into position using the thermal I flicked the light on and –they scattered to all points of the compass. That went well I thought. I could see I was going to have to get a bit more serious.

A visit to my nephew Blair at his Waipukurau sports shop saw me returning home with a Bergara BMR in 17HMR and a Pard 008S night vision scope. Of course nothing ever goes

smoothly and in this case it was the 30 MOA rail the rifle is supplied with that was the problem. **It was impossible to sight in with the crosshair ending up right at the top of the image and still not on target.** I made up a mounting rail to suit and things went according to plan from there.

After the addition of some Primos trigger sticks and dive boots, which I thought would be perfect for sneaking up on the hares but the rest of my family thought were hilarious and named them the ninja boots, the balance definitely shifted my way. A steady stream of success saw me getting over 30 hares and a few bunnies out of that small block.



Hare damage which started me down the night vision path



What the grapevines are supposed to look like

On the strength of this Greg clearly thought I was some sort of night vision expert as during a visit to NZ Hunter HQ he handed me a box and said 'here do a review of this' and so that is how I came to be doing a review of the Pard TD32-70 thermal/night vision scope.

There are so many options for personal preferences such as type and colour of the reticle, what you want your default settings to be and a host of other settings that I cannot possibly cover them all so this will be more of an overview

At first glance it is unlike a conventional scope with what seems like bits sticking out in all directions but with a bit of familiarity you realise there is a reason and a purpose to all of this.

The main tube objective houses the thermal lens, on the left is the laser range finding unit with a range of

1000m/1200yds, on top is the day/night vision sensor and on the right is the infrared illuminator. The IR on this scope is a VCSEL unit which is laser as opposed to LED based. Broadly speaking this will give a little more range with less current draw. **They are available in both 850 and 940nm wavelengths.** The 850nm will give more distance than 940 but a faint red glow is visible at the emitter whereas the 940nm is completely invisible so for heavily hunted animals it may be an advantage. The unit under review is 850nm. The single 5000 mAh Li-ion battery is housed transversely in what would normally be the windage and side focus turrets. Towards the rear of the scope is the keypad housing and on/off button. It has an IP67 rating so should be able to handle all the weather conditions you are likely to be out in.

From the manual the day/night vision has a 1920 x 1080 resolution and a base magnification of 6.5 with x2 digital taking it to 13 (the screen shows 5.6 and 11.2). The thermal has a 384 x 288 resolution with a NETD of ≤ 25 mK (its ability to detect temperature differences) and a base magnification of 3 with again a x2 digital zoom.

Anyone who has used night vision equipment will have realised that there are pros and cons to them.

Thermal is easy to find things with and has impressive range but lacks clarity and it is not always easy to know exactly what you are looking at. Night vision with an IR illuminator is pretty much the opposite with animals more difficult to see if there is no eye shine and less range than thermal, but with clarity that thermal cannot match. This is probably the main purpose of the Multi-spectral TD32-70, being able to quickly see where something is with the thermal and then see what it is with night vision.

Mounting the scope on the rifle was straight forward once Blair had sent me a 0 MOA rail for the Bergara which were luckily now available. The Pard comes with a set of rings but they are quite high and with the low comb height of the rifle I chose to use some 30mm lows that I had sitting around.

The scope can be setup using picture in picture (PIP) where the main image can be day/night vision and the thermal image can be seen in the smaller inset image at the top of the screen. A CCW twist of what would be the elevation turret in a conventional scope reverses this and the thermal is now the main image. A CW twist zooms the image and this is how I had it setup.

Sighting in is accomplished using the one shot freeze frame method whereby after aiming at your target and firing a shot you



The day/night vision and IR illuminator can be seen above the objective housing



The new TD32-70 thermal/night vision scope above the Pard 008S scope I began with.

The extra capabilities of the TD32-70 vs the 008s come with a weight and size penalty



The balance had tilted my way

hold the crosshairs on the aiming mark and freeze the image this then allows you to move the crosshairs to the bullet hole. **The only unusual aspect to this is the need to sight in the day/night vision and thermal individually.** The process went fairly well at the initial distance of 30yds. I had made a cross of silver duct tape for the thermal sight in and could see this but when I moved to 75yds it was not visible at all. After completing the final adjustment for the

day/night crosshairs I found a couple of small round stones that had heated up in the sun and placed them on top of the battens on the fence. They were highly visible through the thermal and so using the PIP I moved the thermals crosshairs until they lined up with the day/night ones. This was evidently successful because I was able to shoot one of the stones off with the thermal and the other with the day/night so had not bugged up anything in the process. The reticle



The first night out with the Pard

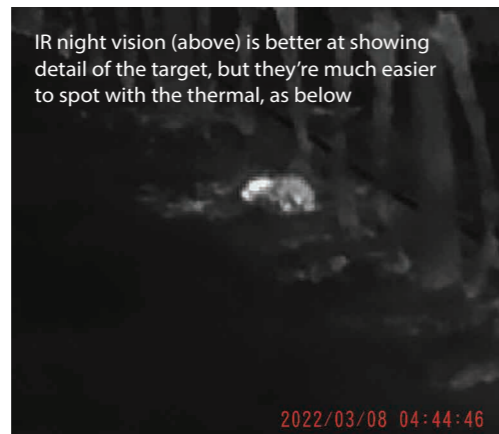
stays centred in the image so that is a plus.

Due to the limited time I had with the Pard and the relatively short range of most of my shooting I did not try to set up the ballistic function but it appears to be a proper ballistic calculator integrated with the laser rangefinder that overlays a corrected aiming mark on the reticle so would be useful for those shooting at longer ranges, especially at smaller targets like bunnies.

Speaking of bunnies I had noticed a bit of digging down some of the grape rows and so now the Pard was mounted and sighted in they were going to be the object of my attention. First up it wasn't a bunny but yet another hare sitting right in the middle of a row at 89m. The IR illuminator gave plenty of light and so with a good rest and the image zoomed up giving me a good sight picture I was able to comfortably account for it. First blood to the Pard. **Next was a small bunny at only 30m (the ninja boots were doing the business).** Using the thermal image in the PIP made it easy to find the bunny and get on target quickly making it relatively simple at that range to chalk up victim number two. Nothing else was spotted that night although I did get another hare and two rabbits the following night so I did a little experimenting with the IR illuminator. It has three power levels which are accessed through one of the buttons on the keypad and this button is also used to scroll through the various colour palettes such as white hot, black hot etc when in the thermal mode. It can also be zoomed from flood to spot by sliding the lens housing in and out. The rows are about 220m from one end to the other and with the IR set to its highest power and on spot I would be quite happy to take a shot at a rabbit or hare at that range if the scope was on something like my .204. Due to its lesser magnification and definition the thermal mode at that range



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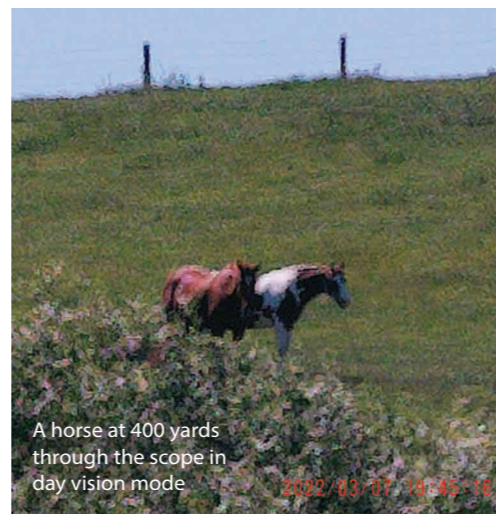


IR night vision (above) is better at showing detail of the target, but they're much easier to spot with the thermal, as below

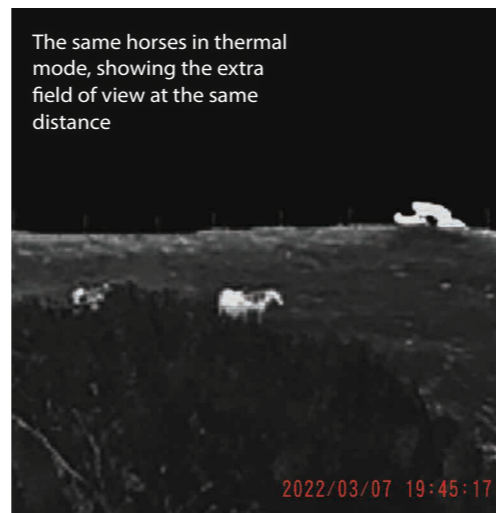
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on small targets would have you aiming at just a small blob so it is probably best suited for finding and putting you on target then using the night vision for the actual shot.

At 800 gms without battery it is nearly double the weight of my Pard 008S and I certainly noticed the extra heft of the TD32-70 on my small and light 17HMR but not ridiculously so and certainly not considering its extra capability. **For somebody using a rifle for serious pest control or commercial hunting who not only needed to get on target quickly but needed to know exactly what they were looking at I think it would be right at home.**

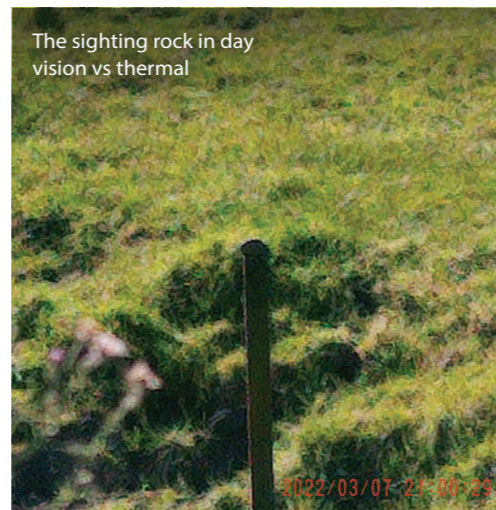


A horse at 400 yards through the scope in day vision mode 2022/03/07 14:45:18



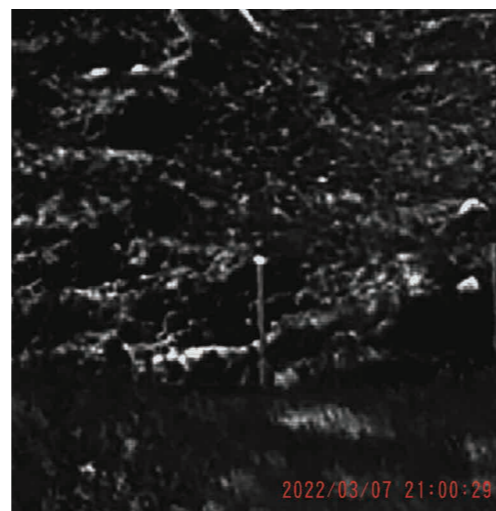
The same horses in thermal mode, showing the extra field of view at the same distance

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The sighting rock in day vision vs thermal

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