

[ PRODUCTS ]

Perfectly matched to any airgun ranges for a spot of rabbiting.



# Up Front

**Bruce Potts** is no fan of NV, but finally finds a hybrid digital scope that he approves of – read on

**N**ight Vision and a purchase of new kit can and is a nightmare, no pun intended. There are so many options, variants, prices, styles and grades it is very easy to spend big money and get the wrong thing.

However sometimes a bargain is a bargain especially when you consider the new Yukon Photon which retails for £399.95. This is another addition to the new Digital NV format that does away with image intensifier tubes using instead a CMOS sensor to produce a black and white image. One benefit is the price; for example the larger dedicated NS750 retails for around £1200 and performs like a Gen 2. These sights are in general large and can present mounting issues, not so the Photon, this uses the excellent Yukon Craft optical day sight! Essentially it's a digital imager mounted to the front so you see a TV-type image. This means a set of 30mm scope rings will mount it to your favourite rifle, easy.

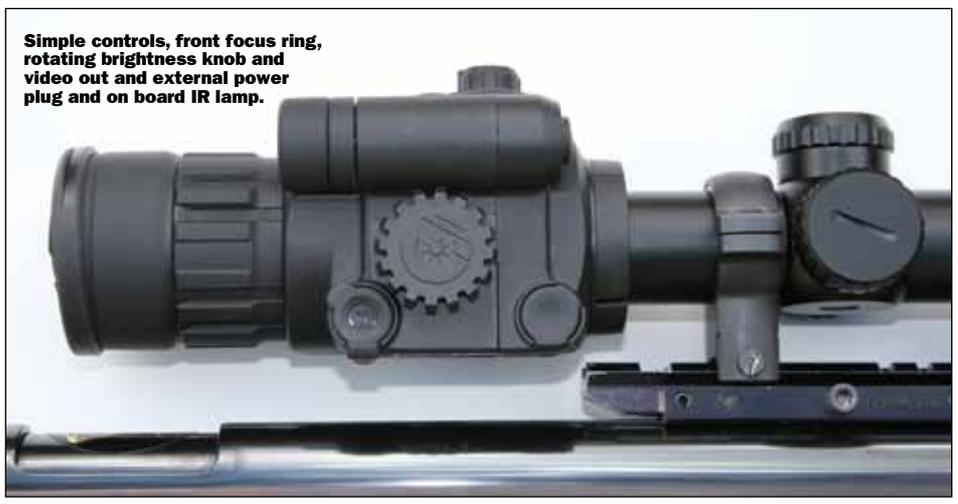
The benefits of the digital units unlike intensifier tubes is that they are safe to use during daylight hours for sighting in!



Positive ¼ inch adjustments per click and reticule illumination dial plus NV setting



Two AA batteries held vertically to stop recoil bounce disconnecting them



Simple controls, front focus ring, rotating brightness knob and video out and external power plug and on board IR lamp.

## SPECIFICATIONS

Other than the digi unit up front the Photon is a pretty standard rifle scope. I will start at the back and work my way forward. Actually the mag and objective lens are 5 x 42mm which is pretty good for an NV unit, as most are x3 to x4 so you get a bit more mag. Its 13.5" long and the eyepiece has the standard fast focus ocular. The body tube is 30mm diameter so easy mounting, I chose the excellent BKL from Deben, giving perfect height for proper eye alignment. There's a good degree of adjustment inside and 2" of space behind the saddle with 1.5" in front. Only issue with this is a small space to attach an additional IR illuminator if you want too. That's why I used the slim single screw BKL mounts.

Elevation and windage adjustment is via standard, ¼" click turrets with removable caps. On the left is a rheostat for the illuminated reticule, which is a dot with in a 30/30 style arrangement. There are 11

<p><b>↑ FOR</b> Well priced and effective</p>	<p><b>↓ AGAINST</b> Not a lot</p>	<p><b>→ VERDICT</b> A practical and cost effective alternative to bulky night scopes be they tubed or digital</p>
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settings and with the first being marked NV for night use, i.e. lowest setting.

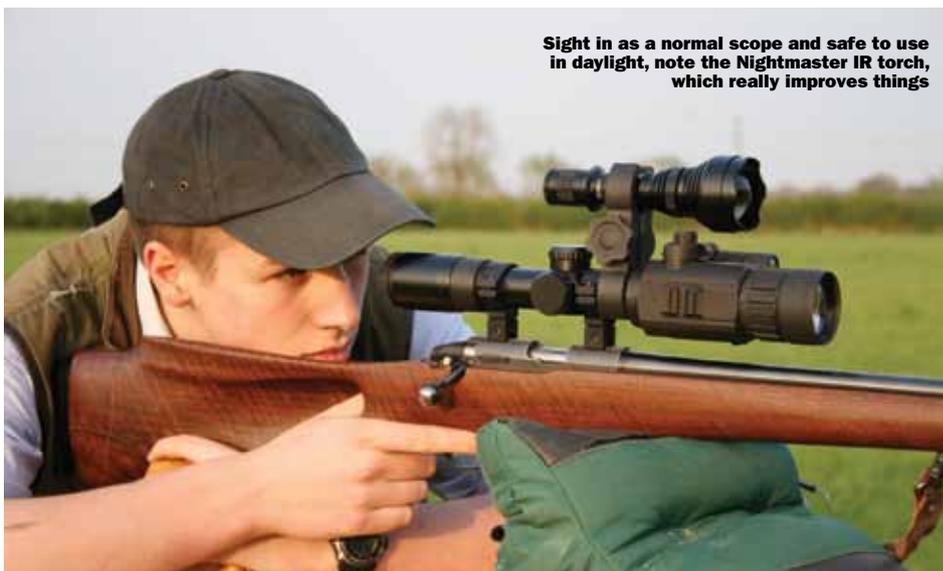
Now the interesting part, where the objective lens is now sits a Digital NV unit with a 42mm lens in a 50mm housing. There's a push-on protective cap which I lost straight away, a re-design needed here I feel. This front end is there to gather light so it projects onto the CCD unit inside, you cannot look straight through the scope. Behind this is a large knurled focus ring to fine tune the image and then the main body and to the right a spare Weaver rail. On top a removal Q/D cap covers the battery compartment, which holds 2 x AA batteries set vertically to stop recoil disconnecting them. To the top left of the housing is the integral IR illuminator. It is a 780nm unit that is eye safe to use importantly and has the equivalent IR power of 150mW and beam divergence is 4° field of view.

Below this is a large serrated thumb wheel that both switches on and increases the brightness of the image in a smooth continuous level. To each side is an external power-in and video-out plug. That's it, nice and simple and very easy to use.

## FIELD USE

I mounted the Photon to a Venom-tuned HW77 air rifle as well as a Sako Finfire and RPA .308 Win, to check out results from rats up to fox. I also check and test on life size steel silhouettes of rabbits and foxes for groupings and detection at range.

To switch on - turn the serrated switch towards you and the unit comes to life and you see a black and white TV image with your reticule superimposed on it. Like most NV scopes be they tubed or digital the reticule uses a moving image, so once zeroed the cross hair might not appear in the centre of the view! The Photon uses a 1/4" CMOS sensor with a resolution of 500x582



**Sight in as a normal scope and safe to use in daylight, note the Nightmaster IR torch, which really improves things**

pixels and a Kopin KCD-QD05-AA 320x240 display. This all means you have an image resolution equivalent of 36 lp/mm (lines per mm) which is really like an entry level Gen2+ image intensifier tube, so pretty good.

The ON switch is a little too easy to operate so take care as it will flatten a battery if it gets nudged on in a gun bag. But as with all digital units it needs a good light source for best results, this means moonlight at least. With a half moon and semi cloud you need to switch the brightness to max and I was easily seeing rabbits to 100 yards but only able to engage and shoot to 75 yards in truth.

But as the ambient light waned you really do need to use the IR source for best results. Now black rabbits in the natural light turned bright and the eyes shine back so even a half hidden pest is detected. The onboard IR is fine actually but due to the eye safe nature of the unit, which is good, you do get artefacts across the image making it 'fleckly'. It's just a bit annoying so I fitted a

Night Master 800 IR lamp and this transforms the Photon and works it to the maximum. Much clearer images and detection range. Now I could shoot a rabbit at 100 yards if I wanted, and foxes out to 100-125 yards - and with practice more.

It was nice to have such an uncomplicated easily mounted NV for a change and is ideal for hunters who only shoot within their limits and do not brag about long shots at night, (not clever!)

## CONCLUSION

We have seen an explosion of digital technology with design innovation with dedicated rifle sights and add-on units for front and rear mounting. This Photon is one of those pivotal moments when it surpasses all expectations and is such a good price, £399.95. You need to use the on board IR or the excellent NightMaster for best results honestly but for real life, real range not exaggerated shots the Photon will fit your needs be it air rifle, rimfire or fox use. You can also use it as a day or night sight without damage and the fact that it mounts like a conventional scope is so much better



**Works rather well on a Sako Finfire and Eley subsonic ammunition out to 75 yards.**

## TECHNICAL SPECIFICATIONS

■ Name	Yukon Photon
■ Spec	5 x42mm
■ Length	13.5"
■ Body tube	30mm
■ Illumination	11 settings
■ IR Illumination	780nm Eyesafe
■ Focus	Side wheel
■ Adjustment	1/4 click Elevation/Windage
■ Price	£399.95
■ Contact	Thomas Jacks Ltd, (UK Trade Importer/Distributor) 01789 264100 Nightmaster IR torch 01274 561856 www.nightmaster.co.uk Scott country 01556 503587 (Major NV Retailer)