

TACTICS AND PREPAREDNESS



SKILLS AND SURVIVAL FOR ALL SITUATIONS

SHOOTING WITH NIGHT VISION

BY **BRENDAN SOUDER** | PHOTOS COURTESY **RPGi**

At 9 p.m. on a range in Holt, Florida without a single light on, and an instructor issues the command, “stand by” followed by the sound of a shot timer approximately two seconds later.

The range lit up like the fourth of July with muzzle flashes and shooters engaged their targets during a reflexive firing drill. How did they see their targets? Where were they aiming? How could they move safely in the dark? The answer is complex yet

straightforward in integrating technology and marksmanship. Each shooter used night vision and infrared lasers to operate in the darkness.

Night Vision devices were first developed in the 1930s by the Germans for their infantry and tanks during WWII. Our

military started development close to the same time and saw use in WWII and Korea. These devices would be commonly referred to as “Generation Zero,” which unfortunately only intensified existing light 1,000 times while massive in size and they required an infrared *continued next page*

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STAFF

DAVID MORRIS and "OX"	Publishers
CHRIS GRAHAM www.chrisgrahamauthor.com	Editor
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Shooter using active aiming technique with IR laser and NVG combo.

searchlight. Eventually, in the 1960s, scientists would develop the “first generation” model of night vision goggles that were “passive” in nature, meaning they did not require an external infrared light to work. Technology has advanced significantly since then and forces from Iran to Mexico shoot with modern night vision today.

So, what do you need to get started? At RPGi we get quite a few folks sending us messages asking about the night vision training we do here in the Florida Panhandle. You need a basic set of night vision goggles that function adequately. You also need a way to mount them to a helmet or a “skull crusher” (also known as a head mount system). Shooters also benefit from having a decent infrared laser system that can be zeroed. Depending on which gun you want to train with, having a red dot sight may be best to use on your platforms for practical/tactical application.

During our classes, I use the most economical combination to show our guys how to save money and still have night vision capability. I use PVS-14 green phosphorus as my NVG setup on a skull crusher, Streamlight TLR VIR II and a red dot sight. I’ve taught my classes with this setup on an AR-15, PCC and Red Dot Pistol. A functional setup is essential and builds on what we’ll discuss during helpful drills to conduct when training for night vision enabled activities. You want the ability to use active aiming techniques (infrared lasers) and passive aiming techniques (shooting

with NVGs through the optic). Lastly, it is vital to have two to three times the number of batteries that you think you require for your platforms on equipment. Night vision training consumes many batteries, and it is best to have spares when heading to the range.

Our classes always start with the basics. I have learned over the years, just like everyone else that I have come across in the industry, that one must start with and master the basics. Night vision is no different, and you have to know your equipment. We begin with equipment familiarization during hours of daylight. We show our students how to adjust settings, turn on their devices, change the batteries and mount them to their guns and helmets. We tell them the do’s and don’ts, such as taking the batteries out while storing, not leaving the device on when not in use, and not turning the device on while in daylight. The class also has a portion discussing the proper wear of NVGs, which depends on whether shooters have a dual tube or monocular. If we have a monocular-equipped student (very common), we talk about and demonstrate the importance of wearing the mono over their non-dominant eye. This technique allows the shooter to utilize their optic with a white light combo if necessary (active IR aiming). We also provide them with information of a small company in the Southeast that has the technical background to conduct servicing of their systems.

A high percentage of individuals request-



RPGi shooter using passive aiming technique during course of fire.

ing night vision training still require substantial daytime marksmanship training. We use the daylight time to work in the drills that we have scheduled to conduct at night. We start with zeroing their red dots on their weapons and continue with practical drills that the students will face at night in the course. We have learned that conducting training in the daylight as a rehearsal for the night portion is by far the best practice for night vision training, especially for students just getting in the game.

As the sun goes down, we begin the process all over again with zeroing. Only this time, we focus on the students' IR lasers. We like to use a 15 yard zero for pistols and a 25 yard superimposed target (PEQ15/LA5) as a start. Once our students are close on paper, we like to set them up on steel at varying distances out to 100 yards with 66 percent IPSC targets. In some instances, we use full-size iron maiden targets out to 200 yds armed with T1000 hit indicators to refine our shooters' zero. Depending on where the laser is mounted on their rifle also impacts the relation of the point of aim and impact at various distances. Bottom line up front, a good zero will allow a rifle shooter to impact a 66 per-

cent steel IPSC target "1 for 1" at 50 yards, 75 yards and 100 yards. In 2020, we found that with the most budget-friendly setup (PVS-14s and a Streamlight TLR TIRII), we could impact an iron maiden without issues at 175 yards with a pistol caliber carbine shooting 124gr 9mm ammunition.

ACTIVE AIMING

We often use reflexive firing drills to reinforce close quarters marksmanship on the range with rifles and pistols. Having the proper stance, grip, sight pictures (or laser aiming) and trigger pressing is still crucial when shooting at night. Shooters often struggle to transition to a different style of aiming with lasers. Shooters will attempt to make a cheek to stock weld when shooting rifles that is not necessary with IR lasers. We teach people to keep a neutral spine (heads up) when using their live fire drills at night. During the drills, shooters must continually identify their targets with NVGs and activate/de-activate their lasers as they engage targets. When you constantly use your activator switches and buttons you can develop muscle memory to improve your speed to execute the fundamentals consistently. The purpose of these is

to create repeatability and improve the student's comfort level with their equipment.

PASSIVE AIMING

There are numerous advantages to passive aiming techniques while training and operating at night. Shooters who carry weapons and use night vision for work may already be aware that our adversaries and criminals have access to this capability. There once was a time where we (American soldiers) were reasonably confident that we had the upper hand in technology regarding night vision. A realistic current assessment relating to NVG proliferation does not guarantee we have an advantage. It depends on who you are fighting or where you are in the world.

We must understand the double-edged sword of night vision technology proliferation and how it changes from situation to situation. We also have more capability to take accurate shots using passive aiming techniques, reducing the margin of error from lasers "blooming" or the size of your laser when covering a target versus your optic reticle through NVGs. The passive aiming technique of night vision enabled marksmanship is becoming a prevalent aspect in night training

and courses. We spend a reasonable amount of time on this topic in our classes using advanced marksmanship drills from five yards to 25 yards, reinforcing this technique. Shooters with PVS-14 style optics move their NVG over their dominant eye to provide them the ability to shoot through the optic. Shooters engaging targets out past 300 yards with rifles typically use this technique on precision rifles with scopes achieving extreme levels of accuracy.

RPGI NIGHT VISION CURRICULUM:

- Equipment familiarization block: This is where we ensure our shooters understand their kit, and batteries are changed. We properly fit helmets and NVGs. Lasers are mounted effectively.

- Marksmanship training (day): We conduct a short program of instruction on marksmanship fundamentals, including checking zero, confirming zero at distance (on steel) reflexive firing drills and a quick stress test. We drive the students to practice activating their switches and buttons as they would at night. This activity produces familiarity with their equipment in preparation for the night portion.

- Marksmanship training (night): The staff focuses on ensuring every student's laser is functioning correctly and zeroed. Our students utilized paper targets with a small piece of glint tape glued to the point of aim section of the laser zero target (this allows shooters to hold their laser in the correct spot when zeroing). Afterward, we transition the shooters to steel targets at distances of 50-150 yards (long target armed with T1000 hit indicator). After the staff assesses that the shooters can successfully engage steel out to distance, we continue training advanced marksmanship drills on the flat range in preparation for our stress tests.

- Stress tests: We believe that all training on any given range day should culminate with a live-fire stress test. These tests are designed to check on our students learning and enforce the training we carried out during the program. We often find that we will have a few students default back to what they knew in some cases. We use the stress test to provide an overall assessment and highlight areas to focus retraining and follow-on training with our students. We experience a high success rate when we can match the day training volume to the night training volume.



We have designed and modified various drills that enhance our shooters' ability to shoot with night vision and IR lasers. My favorite drill is our version of a "Changing Gears" drill containing two paper targets (IPSC humanoids) and a 66 percent steel IPSC. Targets are arrayed in the following manner:

- IPSC paper at a 45-degree angle on the right facing the shooter at a distance of 10 yards
- IPSC paper at a 45-degree angle on the left facing the shooter at a distance of 25 yards
- 66 percent IPSC steel target squared up with the shooter (armed with a T1000) at 50 or more yards

The drill is straightforward and requires the shooter to rapidly engage the targets while utilizing the optimum fundamentals and can be shot from the standing, kneeling, seated or prone positions. The targets are to be engaged in whichever order the instructor calls (Right/Left/Center, Center/Left/Right and etc.) and leaves room for numerous variations. The goal is to force the shooters to push the envelope while maintaining accuracy (A-zone only for paper and one for one on steel each iteration). This drill is a five-round course of fire that can be used both day and night in a 50-yard action bay.

Lastly, the best practice by most shooters is dry fire training which in today's age saves precious time and resources. There is much potential for positive training gains

when conducting dry fire at your house or on a range. Many shooters, including military, government and law enforcement, use dry firing to rehearse and familiarize themselves with their equipment. We recommend dry firing and practicing activation/de-activation of lights and lasers when possible. Additionally, it costs no money to put on your night vision goggles and walk around at night without a gun or kit on. Learning how to walk and smoothly conduct basic tasks at night with NVGs on is a feat in itself.

Remember, it takes a lot of reps to operate effectively at night and "own the night". We must continue to educate ourselves as a community of interest and a community of practice. As the world becomes more technologically advanced, the delta or difference between our adversaries and us is how we strive to overmatch their ability to use the same technology. Build your skills safely, build your skills legally and build your skills before you need them. ✓

BIO

Brendan Souder is an active duty soldier, a competition shooter, and owner/operator of Range Project Group International (rpg-international.us) in the Panhandle of Florida. RPGi hosts shooting competitions and training courses that leverage the SOF background/competition hybrid model. The views expressed in this article are the opinions of Brendan Souder and do not reflect views of the U.S. Military.