BLACK STAR DEFENSE

INDY

Handgun Optics – An Introduction

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Handgun Optics – What is a Red Dot Sight?

- Red dot sights typically use a red LED. This allows the reticle to stay in alignment of your gun regardless of eye position. A red dot is composed of a tilted spherical mirror that reflects the red LED. This mirror has a specific coating that only allows red light to pass through—hence the name “red dot” sight.

- This allows you to easily see where you are aiming against darker backgrounds, or in the woods where it's green. The LED light consumes very little energy, allowing red dots to last hundreds or even tens of thousands of hours, depending on the brightness setting.

- The position of the mirror allows the viewer to see a red dot when aiming for their target, but a red dot cannot be seen from looking in on the other side, meaning it will not scare away animals because no light is given off.

- The most common type of handgun optic sight is the “Reflex Sight”. The reticle is projected from the rear of the sight onto a glass lens.

Handgun Optics – What is a Red Dot Sight continued?

- Red Dot Sight (RDS) or Ruggedized Miniature Reflex (RMR) – handgun sights generally project an aim point from a rearward projector onto a glass window. This illuminated projected point of aim (known aa the reticle) is most often a round dot, but it can vary in size, shape and color. Common shapes include a triangle, chevron, crosshair, and a larger circle.

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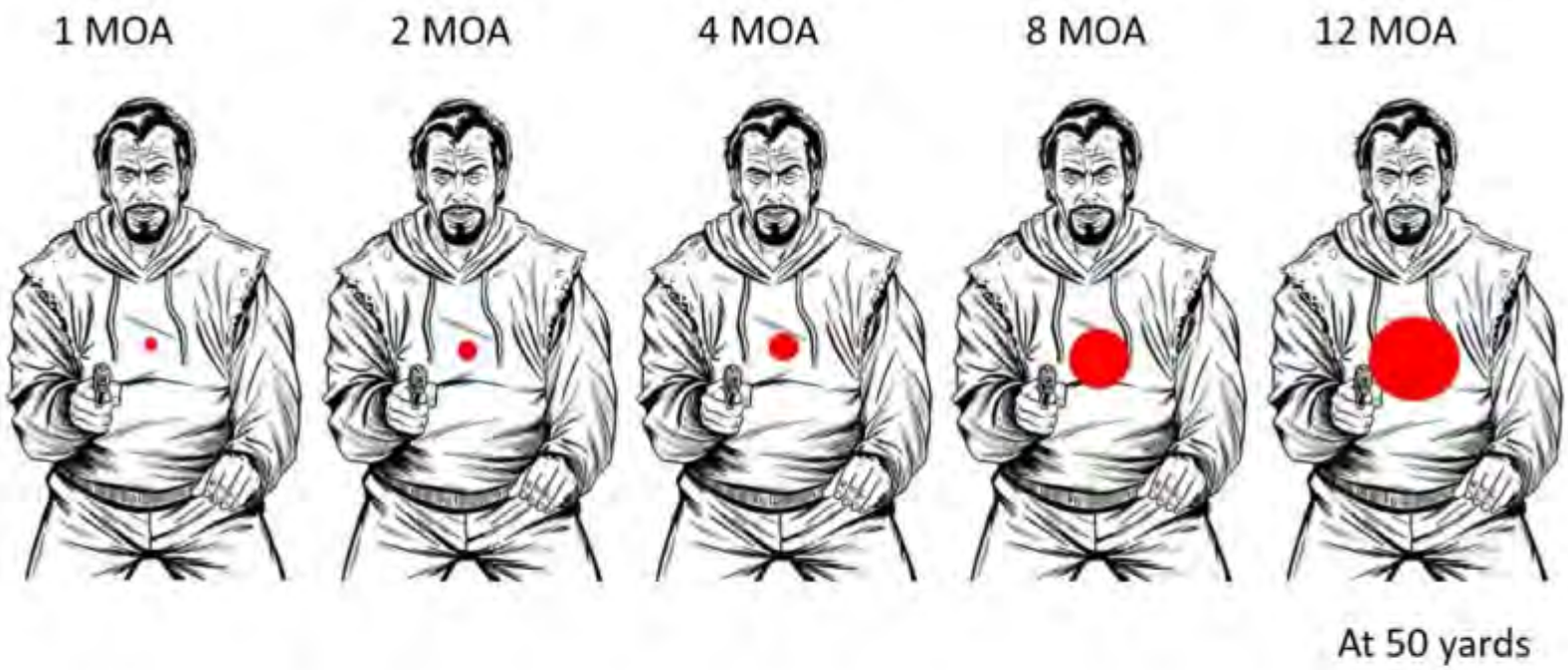
Handgun Optics – Minute of Angle

- MOA stands for “minutes of angle.” This relates to the size of the dot and how much it will cover at a certain distance. For example, a red dot of 2 MOA is smaller in size than a red dot of 6 MOA.
- 1 minute of angle is about equivalent to 1 inch at a 100-yard distance. This means that if you are shooting a gun to hit a target 100 yards away and your red dot sight is 3 MOA, all of your shots will land within a 3-inch area (given that the shooter is aiming at the same exact point on the target for each shot).
- A larger red dot could be helpful if you are hunting for a fast-moving target at a closer range. On the other hand, a smaller red dot will give you higher precision for long-distance shots.

Handgun Optics – Minute of Angle Continued



Modern red dot sights come in more shapes and color options than just red dots. Additionally, the size of the projected dot varies as measured by MOA units.

Handgun Optics – Advantages

- The advantages of red dot sights are faster and easier target acquisition. Red dot sights achieve this by removing the need to align the front and rear sights. They also add illumination to the point of aim (like traditional night sights).

- Traditional sights require attention to three points of focus: the rear sight, the front sight, and the target. The human eye can only focus on one point at a time, and traditional sights require a focus on the front sight, aligning it with the rear sights—and placing both onto the target.
- The red dot sight replaces the need for these three points and allows the user to focus on the target, placing the single projected dot where the round is intended to strike. This a simpler task and it mirrors the threat focus that occurs in defensive situations, allowing accurate targeting while fully focused on the threat (target).

Handgun Optics – Disdvantages

- Concerns about reliability, battery life, and automatic function are more likely to be found in older or cheaper models.
- Additionally, the addition of an optic may further limit holster and conceal carry options. An optic also has the potential to snag when drawing from concealment.
- Cost may be a concern as most reliable optics are still in the $250-500 price range.
- The final physical issue is still a concern in most readily available optics, and that is susceptibility to moisture, condensation, fog, and rain. Almost all currently available red dot sights are an open design with an exposed projector illuminating a point on a single open window. Thus, the window is more susceptible to fogging and dirt, and all it takes is a single raindrop to interrupt the projected dot.
- This issue is being addressed by closed red dot sights recently hitting the market. The closed design features a closed projector with a glass window at the rear (protecting the projector) and front (receiving the projected light). These sights are less susceptible to weather but are currently rarer and more expensive.

Handgun Optics – Pros

- Simpler (no sight alignment)
- Better performance at defensive ranges and speed (easier flash sight picture)
- One handed manipulations
- Easier to shoot with both eyes open (open sight picture)
- Excellent for Low light encounters (note optic intensity)
- THREAT FOCUS (look at target and put the dot on the target.

“Float the dot and take the shot!”

Handgun Optics – Cons

- Mid-tier and higher end models are not inexpensive. You get what you pay for!
- If it can break, it will! Most modern RDS are very rugged and reliable, but it is a piece of electronics constantly under the shock of concussive force.
- Chasing the dot (early in training)
- Susceptible to nature and the elements (rain, fog, condensation)
- Can present firearm and no see the dot (training issue)
- Could alter your conceal carry profile and possibly snag on clothing when drawing.

Handgun Optics – Practice, Practice, PRACTICE!

- The three biggest issues with newcomers adopting red dot sights are learning to draw to the dot, making sure to not chase the dot, and zeroing in the dot. Like with any new equipment, to reap the advantages, you need to practice.

- Drawing to the dot is essential to obtain the speed and accuracy advantages of a red dot sight. Some people can do this with no issue, but many people present a handgun with an optic to find there is no dot visible and then waste valuable time wiggling the gun to pick up the dot. Traditional sights provide a clear guide to aligning the sights on the draw.

- NOTE: To anyone considering adding an optic to a carried handgun is to practice your draw dry until every time you present the gun, the dot is visible and ready to be acquired.

Handgun Optics – Practice, Practice, PRACTICE - Continued!

- The next is the tendency by newcomers is to chase the dot. When the sight picture is a single small dot, it becomes harder to not notice the small variations in the exact location of the point of aim, compared to traditional sights.

- These variations are a natural result of minor muscle movements, eye movements, and even breathing. The issue when these become more noticeable is we are more likely to try and stop the minor movements resulting in chasing the dot.

- Once learned, through practice, to accept the small movements, accuracy quickly improves.

Handgun Optics – Practice, Practice, PRACTICE - Continued!

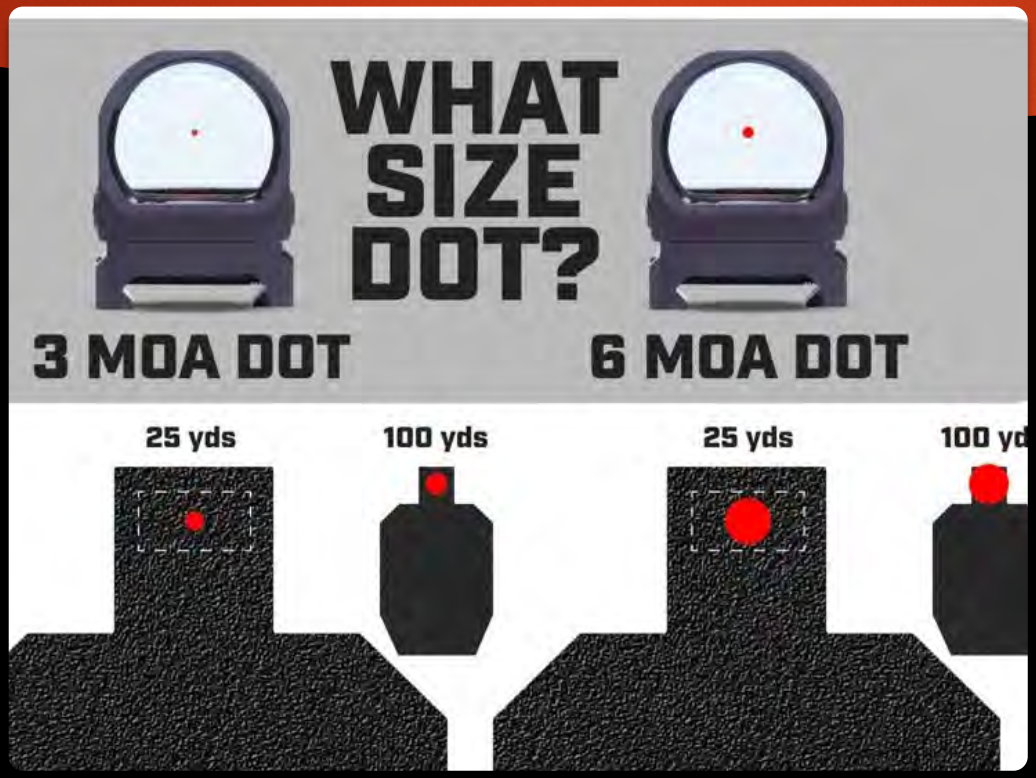
Finally, optics need to be zeroed in not only to a particular distance (as their point of aim is generally higher than the barrel of the gun) but also where the dot will be zeroed at compared to the remaining iron sights (co-witnessed). The options for this include:

- Zero the dot absolute to the iron sights. !the dot will appear directly over the front sight when the iron sights are aligned.
- Lower 1/3 — the dot is in the bottom third of the window when the iron sights are aligned.
- No co-witnessing (no iron sight alignment).

Handgun Optics – Practice, Practice, PRACTICE - Continued!

Absolute **Lower 1/3rd** **None**

The process of zeroing your optic is important to make sure your point of aim is your point of impact at a range of your choice. The zeroing process can also be used to decide how to co-witness your red dot sights with conventional iron sights.



Questions?


Revenge of the
Gun Amish!