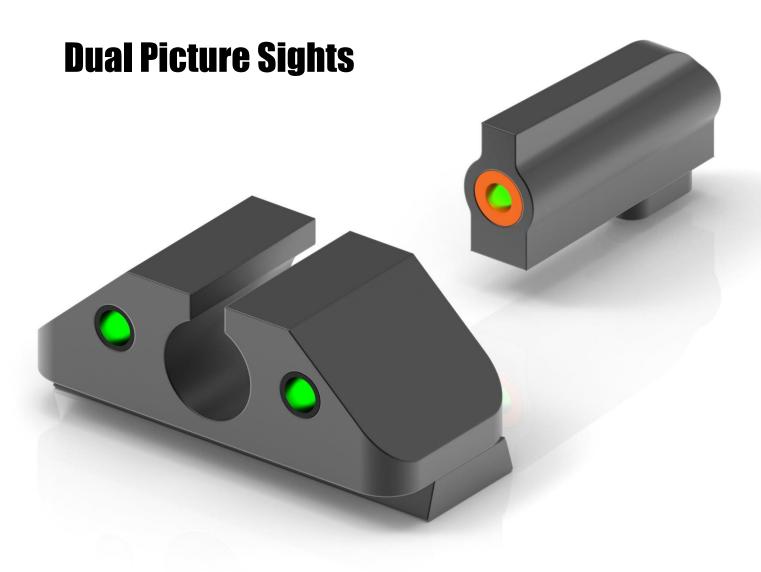


# **North Forest Arms LLC**



Comparison of North Forest Arms – Dual Picture Sights vs Traditional Pistol Iron Sights

# Pistol Sight Optimization: Taking Iron Sight Designs to the Next Level

### Introduction

Our first product line is a completely redesigned set of iron sight that addresses the shortcomings of products currently in the market.

Most current iron sight designs are a variation of the classic notch and post system. These types of sights consist of a square or rectangular front sight that is visually aligned with a rear square or rectangular notch. The alignment should place the tops of both sights on the same plane and spaced with an equal amount of light on either side of the front sight, centering it laterally and vertically.

The variations in current sight designs specialize in speed, precision, or try to take a middle ground that can offer a limited potential for both. This is usually achieved by a wider or thinner rear notch and a wider or thinner front post. The wider versions have better potential for speed and the thinner versions have better potential for precision. Some designs also add luminescent or colored inserts to make the sights easier to pick up visually in an attempt to enhance speed.

Other current, common designs include ghost rings, which are a square or rectangular front sight and a rear circular aperture, and big dot sights, which have a large circular front sight and a shallow "V" rear notch.

None of these designs offer both high speed and high accuracy to the shooter. They are all either specialized for a particular situation, or do not excel in any aspect in order to be functional in many areas.

Therefore, none of these sight designs take heavy advantage of the natural reflexes of the human eye, making the user have to consciously conform to the requirements of the sight rather than the sight

conforming to and taking advantage of the users' natural instincts.

Such designs do not provide a satisfactory solution for those who want to get the most out of their firearm. But it has been the situation for a long time – until now. Now we have the Dual Picture Sight design.

## **Dual Picture Sight Design**

The dual picture sight design takes advantage of the natural reflexes of the human eye, swiftly bringing the front sight into focus and alignment. This is done by having a large, clearly visible, front dot and a circular rear aperture. The human eye naturally wants to concentrically align circles. One actually has to fight against the tendency and can tell when the alignment is off much more quickly as the eye tries to correct the alignment without needing conscious input from the brain.

From here, focus on the front sight, which is proper technique, is achieved reflexively, making for an extremely fast visual alignment. The user can then instantly shift to the precise notch and post, which is more suited for longer ranges where the sight would otherwise obscure the target.

The dual picture sights have surpassed our greatest expectations. These sights have been reviewed by a vast range of people of different ages, proficiency with firearms, and eye health. The response has been unanimously positive.

Additionally, the benefits of our sights are not restricted to handguns and will provide the same outstanding benefits to users of long guns, either as backup or primary sights, and to other similar devices such as airsoft and paintball guns.

Situational advantages of the sights include:

### **Defensive**

The defensive potential of a firearm is one of the major motivators for most gun owners. However, the use of firearms defensively takes place during a high stress, chaotic situation, against threats that are not reliably predictable. A sight specialized for the wrong scenario isn't going to help, and may in fact hinder an operator. The dual picture sight addresses this situation by offering both an easily acquired high speed sight picture as well as an extremely precise sight picture, making it suited for a wide range of situations. As the dual picture sights activate the operator's reflexes to obtain quick alignment with less conscious effort, good marksmanship is much easier to obtain under stress.

Although altercations commonly occur at close-range, long-range situations are always a possibility. Additionally, the distance between the operator and the target can change very quickly during an altercation. Therefore, a sight should be able to serve in as wide a variety of situations as possible. By offering two sight pictures, a thin notch and post and a large bead with a large circular rear aperture, the dual picture sight can be applied at both closer distances where the quick acquisition of a sight picture is needed, and at longer distances where most non-specialized sights will obscure the target and are difficult to align with the necessary precision.

While civilians can affect the distance of engagement through the use of good tactics, it is the job of professionals to go towards violence rather than away, that have the most opportunity to influence the distance of the altercation. Shot placement is the most important element of stopping power, which is the ability of a round to incapacitate a threat, and greater distances favor a skilled shooter, as well as are safer to engage at. When one has time, distance, and light sufficient to make a precisely aimed shot then one should do so, as well as try to gain an opportunity to do so whenever possible. However, many situations require the quick acquisition of a sight picture and sometimes it is tactically sound to choose closer ranges. A sight that can serve excellently in multiple scenarios is an immense

advantage to the professional as well as anyone else who carries a firearm for defensive purposes.

Since the design takes advantage of the natural reflexes of the human eye, it is easier to use under stress. The operator's natural reflexes are engaged, as opposed to having to rely solely on trained habits, and so obtaining a sight picture can be done with little conscious effort on the shooter's part and be done reliably when under the high stress of a violent event. Obtaining a good sight picture under stress is normally difficult. Taking advantage of natural reflexes makes it much easier to achieve. Because of this, the dual picture sight is easier and safer to use under stress.

#### Recreational

Many people purchase a firearm for recreational purposes, either in part or as a primary motivation. Our sight design opens up more options for such a shooter and more opportunities for enjoyment as it is well suited for a wider number of situations and tasks including precise target shooting such as bullseye, speed groupings, and drills where the distance changes significantly.

As the design takes advantage of natural reflexes by drawing the eye to align concentric circles, it is easier to operate and become proficient with. This lowers the barrier to entry as it is easier to achieve the level of skill needed to begin truly enjoying recreational shooting. Additionally, those with poorer eyesight will find that the sight makes the activity easier to perform and so more enjoyable as the sights engagement of natural reflexes means one does not have to strain to achieve the proper front sight focus. In fact, one has to fight against the tendency if they do not wish to focus on the front sight.

As most sights are specialized in one area, there is a limited number of drills, games, and activities they can perform well in. A sight made for quick acquisition will not serve well in precision bullseye shooting, nor will a precision sight serve well when one is rapidly firing against a timer hoping to place

rounds with acceptable accuracy in a brief window of time.

Previously, gun owners would get around the issue either by owning multiple firearms with different sights or by changing out the sights for different scenarios. This can be a prohibitively expensive and time-consuming option as well as being something a beginner is not ready for.

Because the dual picture sight offers high potential for many scenarios, a user would only need this one sight in order to derive an immensely increased amount of enjoyment from the shooting sports instead of multiple guns with multiple sights or multiple sights that needed to be changed often.

### **Training**

The skills needed to quickly fire off a round with reasonable accuracy at relatively close range and the skills needed to obtain a high level of precision do not overlap well. The precise alignment and careful manipulation of a trigger is not the same task as the quick orientation, confirmation and firing of speed shooting. These skills must be trained separately to a large extent. Fundamental aspects like trigger control do overlap, but are trained in different ways by speed and precision drills.

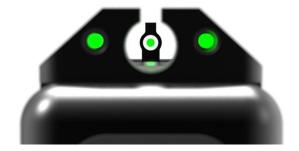
A higher level of trigger control is needed for more precision, as well as a steadier position, while less time is afforded and movement from both the shooter and target might be involved. Therefore, the dual picture sight design offers the user more and improved options for training their skills that do not exist within competitive designs.

Quickly obtaining an acceptable sight picture, what shooters call a 'flash sight picture', is not something easily accomplished with specialized precision sights, such as bullseye sights. Precise alignment and careful trigger control are required for more carefully placed shots. This can only be trained to a high level when the operator can visually confirm the continued presence of very precise alignment. This is extremely difficult to ascertain with sights not allowing for a very precise alignment, such as most

sights designed for speed. While the fundamentals of marksmanship remain the same, they are not improved in the same manner with every drill in the same way a boxer does not improve all his skills with a single drill. A sight that offers more drills with better feedback and results from the drills, is an immense advantage.

Because the dual picture sight takes advantage of the natural reflex of the human eve to center circles concentrically, training to properly obtain alignment, maintain and recover alignment, and focus on the front sight are all goals which are much easier, quicker, and more natural to achieve with this design. The dual picture sight is also well suited for training precise trigger control and accuracy in a way other sight not meant for practical use are. Normal sights made for quick acquisition make it difficult for the operator to tell if the alignment is precise or not, thus decreasing the effectiveness of precision drills. On the other hand, sights made for precision make it difficult to quickly confirm acceptable alignment, decreasing the effectiveness of speed drills. As our design is optimal for both speed and precision, it reduces the learning curve needed to become proficient without putting a limit on the skills obtainable





# North Forest Arms LLC Product Comparison

To validate the benefits of the North Forest Arms – Dual Picture Sight benefits, we are starting a series of trials. These trials will be established to provide a fair platform to quantify the benefits of the North Forest Arms' sights. In any area where we cannot set up a truly equal scenario, the trial will we established to provide the benefit to the traditional sights.

# Trial 1: 15 Participants – Indoor Range

#### The initial trial:

- 15 participants of varying ages and skill levels
- Immediately following a tactical class where the participants just finished using personal pistols with traditional iron or red dot sights.
- Participants did not have any prior knowledge of, exposure to, or experience with the North Forest Arms Dual Picture Sights.
- Trial pistols 2 Walther PDPs. One with traditional sights and the other with North Forest Arms Dual Picture sights. The pistols were factory stock and identical besides the sights.
- 10 shots with each pistol per participant firing at the sound of a buzzer and going until the magazine is empty.
- Stationary silhouette targets set at 7 yards
- Participants were only bound by safety restrictions.
- MantisX X10 Elite used to assist in measuring the results with the 'MantisX Benchmark' function.

### Trial 1: Results

- All participants had an increase in speed'
  - Speed increase ranged from 1% to 37% with an average of 19%

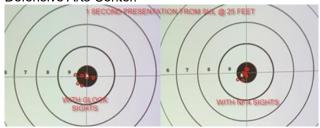
- All except 1 participant had an increase in accuracy
  - Accuracy increase ranged from a -3
    % to a 63% with an average of 21%
- The 1 participant with a -3% increase in accuracy had a 21% increase in speed

### Conclusion

The value of these trials is to quantify the empirical information that is being sent to us by our customers and reviewers.

Our direct customers have provided 100% positive feedback validated by their repeat business and ongoing requests for new products,

Reviewers and influencers have also provided 100% positive feedback including this target comparison from Greg Fishback, owner and lead instructor of the Defensive Arts Center.



We have also received orders from police departments including one that equipped their complete Special Response Team after their own thorough review of our sights.

We are now able to start quantifying what is making our customers delighted with our products. On average they experience over a 20% increase in accuracy **and** an almost 20% increase in speed using our products for the first time, blowing past all expectations.

### About the Authors

John Dees, Founder, started this mission while he was attending the University of Maryland pursuing a degree in Criminology and Criminal Justice. As an avid shooter he joined the Izaak Walton League, a national; conversation organization, to refine his skills and take an active role in other conservation activities. As soon as John turned 21, he became a range officer ensuring that the range was always utilized in a safe manner while helping others learn about gun safety and proper techniques. It was around this time that John started focusing on improving firearm designs that

would not only be beneficial for his own needs but also would greatly assist the variety (age, physical dexterity, strength, stature, eye sight, temperament, disabilities, etc.) of different shooters at the range.

John started his multiyear mission by researching historical firearm designs and the way that people physically interact with firearms. As a result, John started creating designs that started focusing on the human aspects and how the firearms should be designed to maximize usability for the most people. John then took on the task of learning about computer aided design (CAD) and 3D printing technologies to develop proof of concept prototypes which led to him filling 3 patent applications all of which were granted and published. These patents contain the intellectual property on which North Forest Arms is based.

**Earl Dees** has over 45 years of experience in the high-tech market. After receiving his degree in Electrical Engineering from Washington University in St. Louis, Earl started building large data communication networks for the financial, transportation, and first responder markets as well as enterprise business networks for large corporations.

At this point Earl found his passion for joining smaller, technology-based organizations working as a senior team member leading the companies through periods of rapid growth and acquisition by larger organizations. Earl has successfully repeated this process numerous times and continues to provide these services to this day.

### About North Forest Arms LLC

**North Forest Arms LLC** is dedicated to constantly developing and improving the next generation of pistols and accessories designed around human physiology and natural instincts.

Our mission is to deliver our new, patented technology to military, law enforcement and civilian defense. This technology is designed to greatly improve the efficiency of defensive equipment. By applying this new technology, the user will be immediately provided with superior control and management of their weapon system resulting in improved performance and safety.

The two initial leading products are a completely redesigned pistol and a completely redesigned iron sight aiming system.

Visit the company's new website at www.NorthForestArms.com

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