

6/4/2024

Salinas Police Department

**Pistol Mounted Optic
Transition Course**



Topic's that will be covered and demonstrated

- Finding the dot
- Zeroing
- Parallax
- Malfunction clearance
- Tracking the dot
- Downed optics
- Distance Shooting

Miniaturized Red Dot Sights (MDRS) AKA Pistol Mounted Optics (PMO)

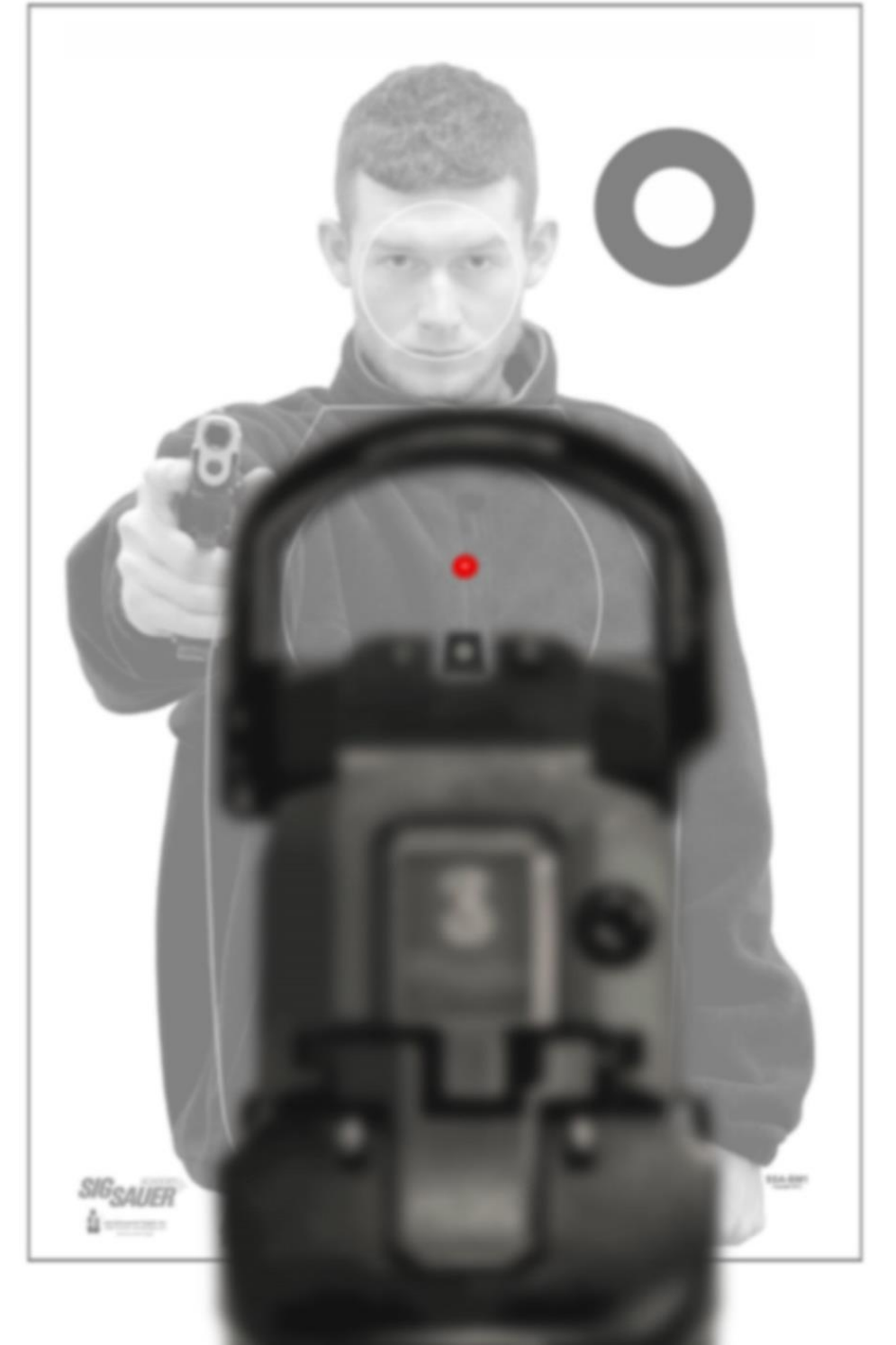
Due to the different manufactures that have been approved at Salinas PD, we will refer to these optics, as PMO's .

What is a PMO? A PMO is a light emitting diode, that projects through collimating optics to give the viewer a red dot point of aim⁽¹⁾.

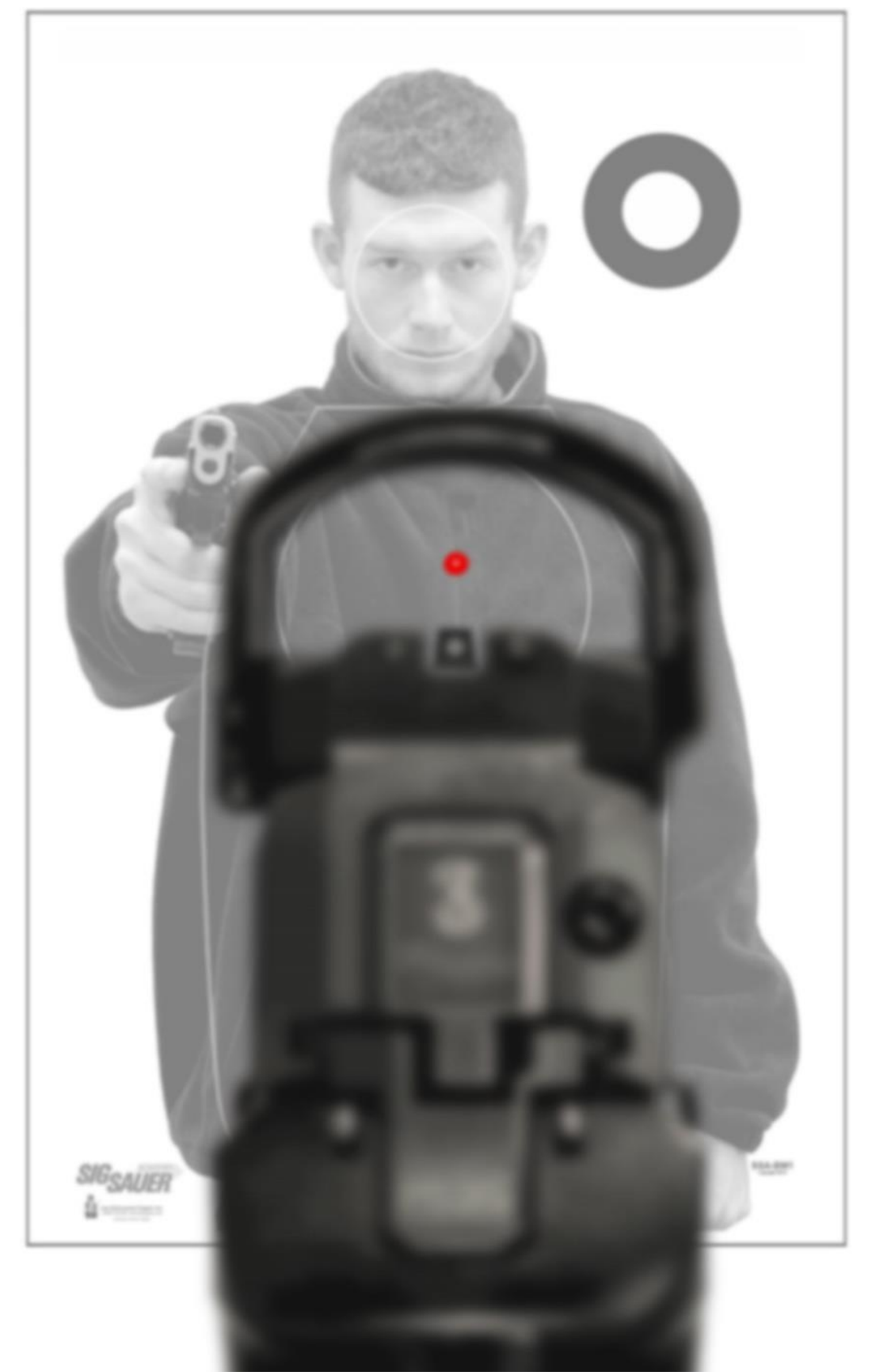
July 21, 2018

NRF046-18





Better Use of Force Decision



Aged Eye Shooter

Parallax

- Is a displacement or difference in the apparent position of an object viewed along two different lines of sight





Marksmanship Training Tool

- Houston PD recruit training
- 80-hour recruit firearms training
- 2 groups
- Iron Sights: 6 days of training
- Optics: 4 Days of Training
- More time spent on decision-making training

Accuracy at Distance





Active Shooter Response

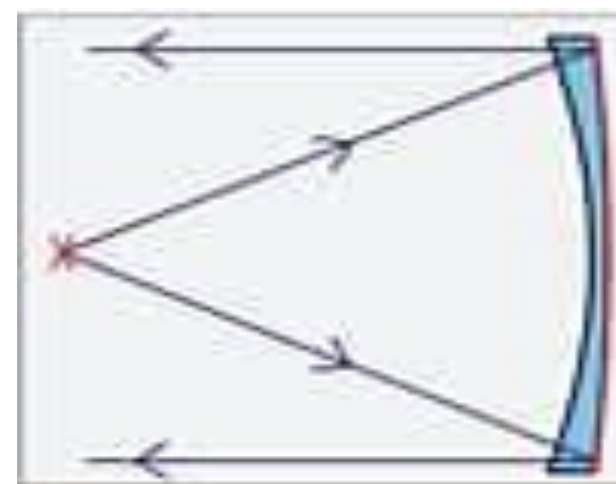
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Low Light

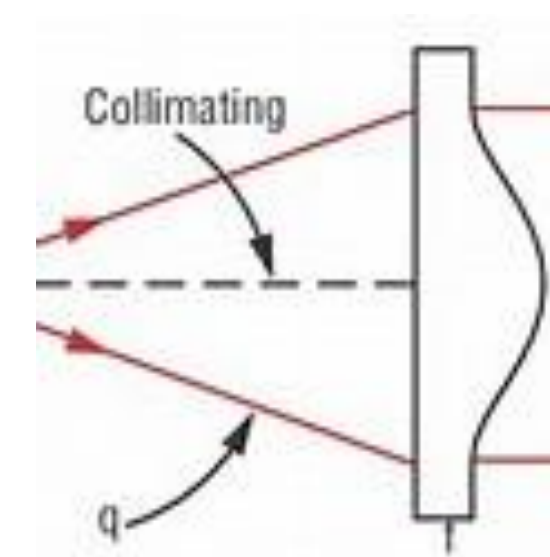


2 Types of Lens

- Mangin



- Asphere



3 vs. 6 MOA Dots

3 MOA



Pros and Cons

- Is easier to engage targets out to distance
- More perceived dot movement, especially new shooters
- Dot can wash out in bright light

3 VS. 6 MOA Dots

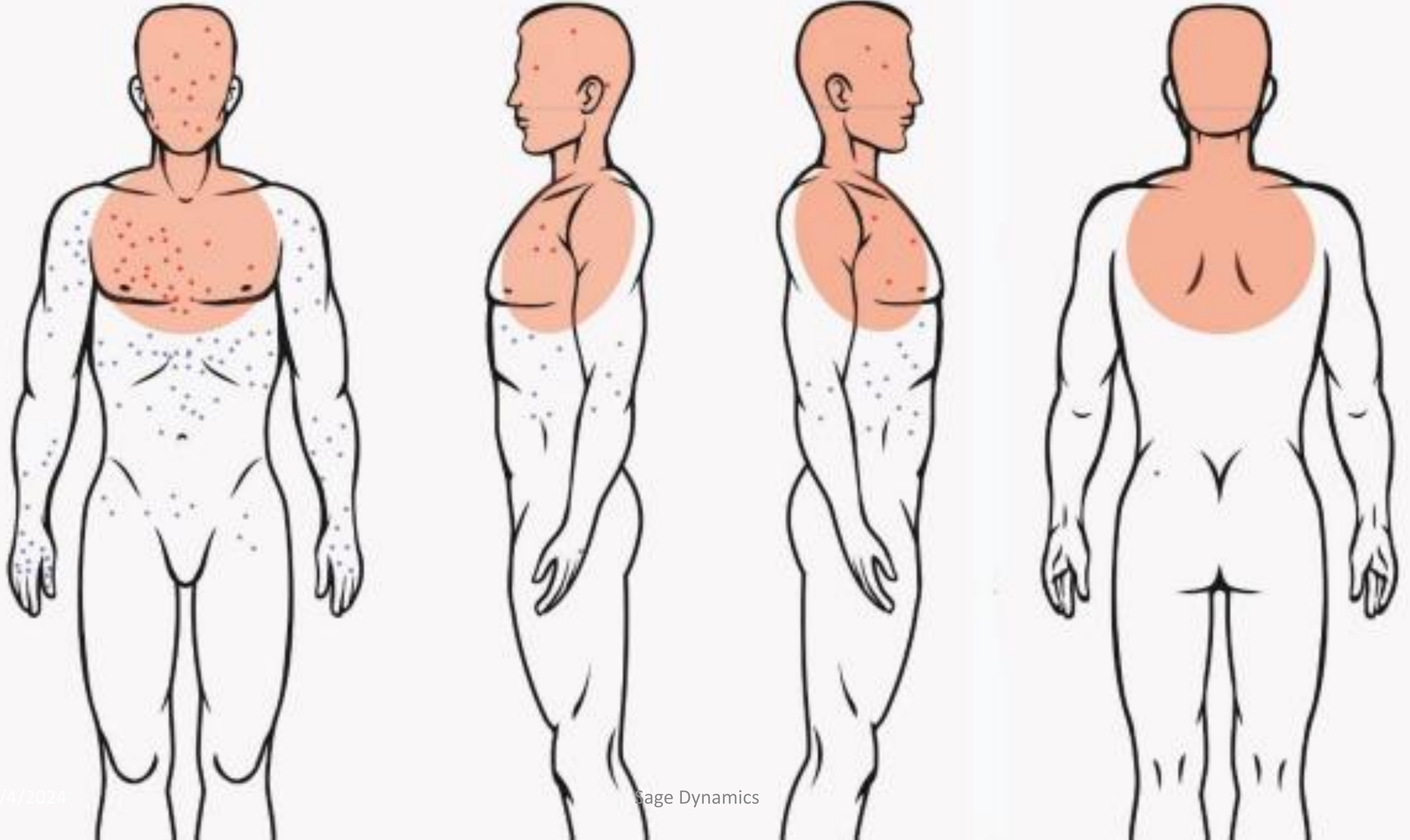
6 MOA



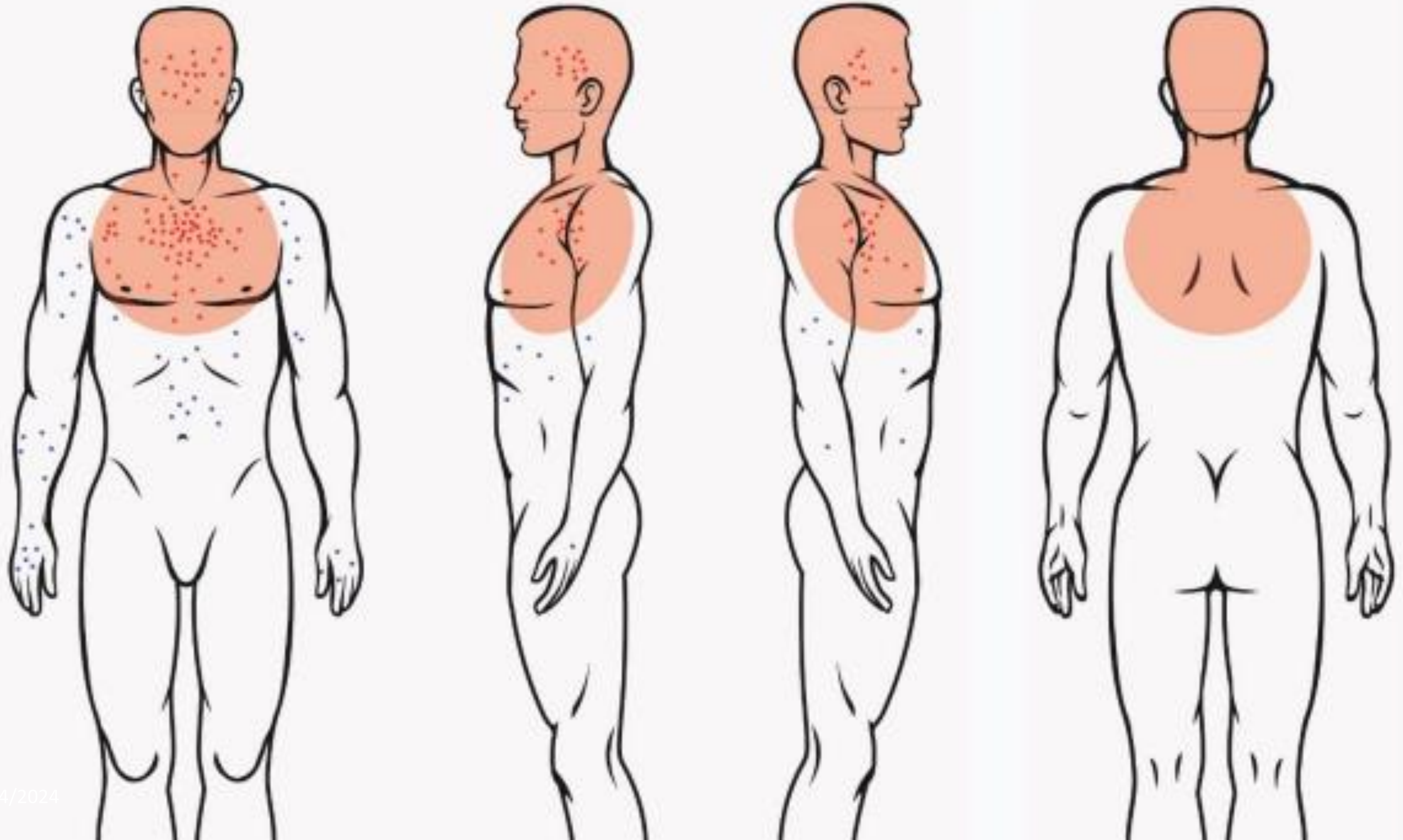
Pros and Cons

- Less perceived dot movement
- Easier to see in bright light
- Covers more of the target at distance

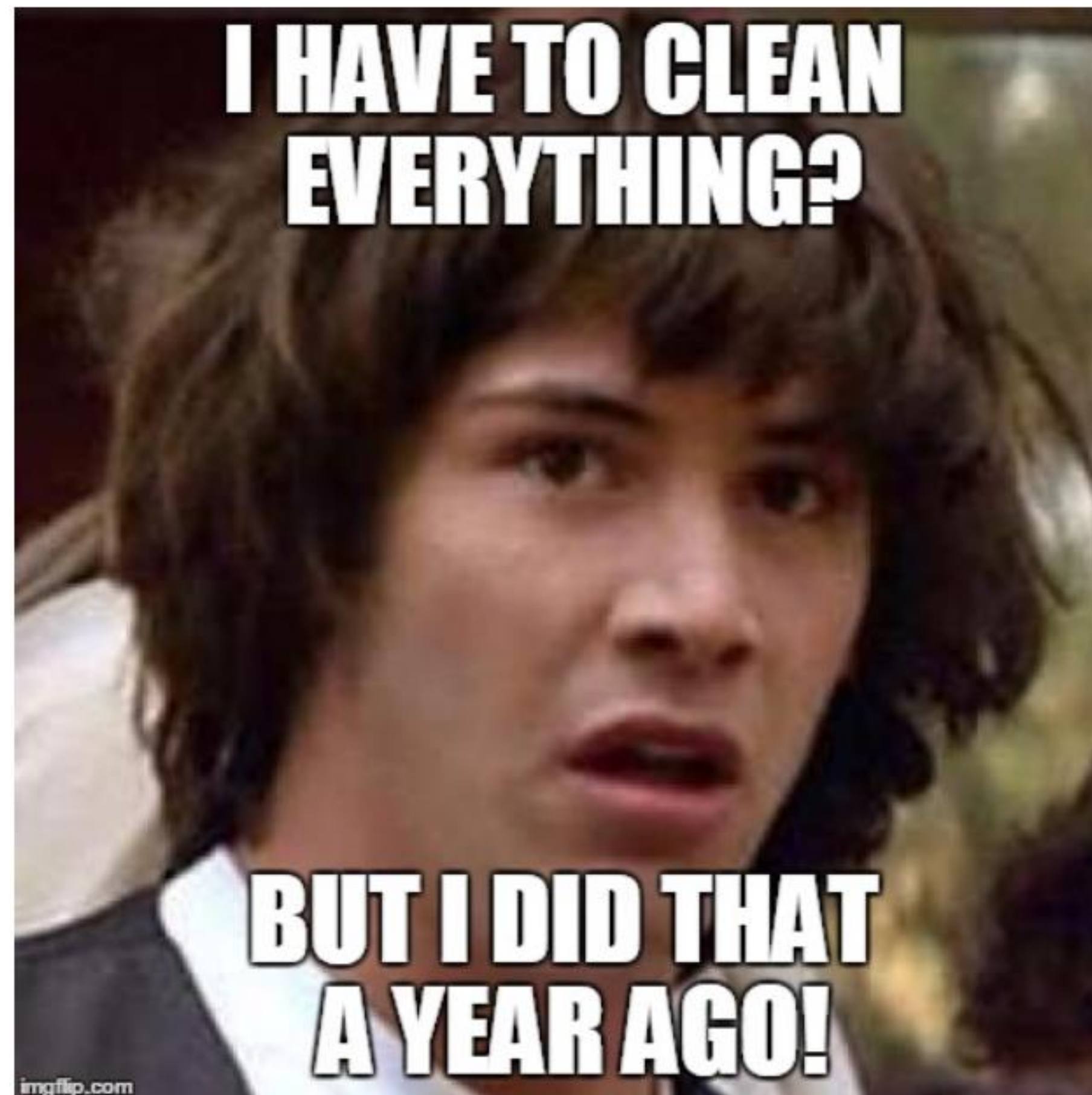
Iron sight hit map



MRDS hit map



Pistol Mounted Optics Maintenance



Maintenance continued

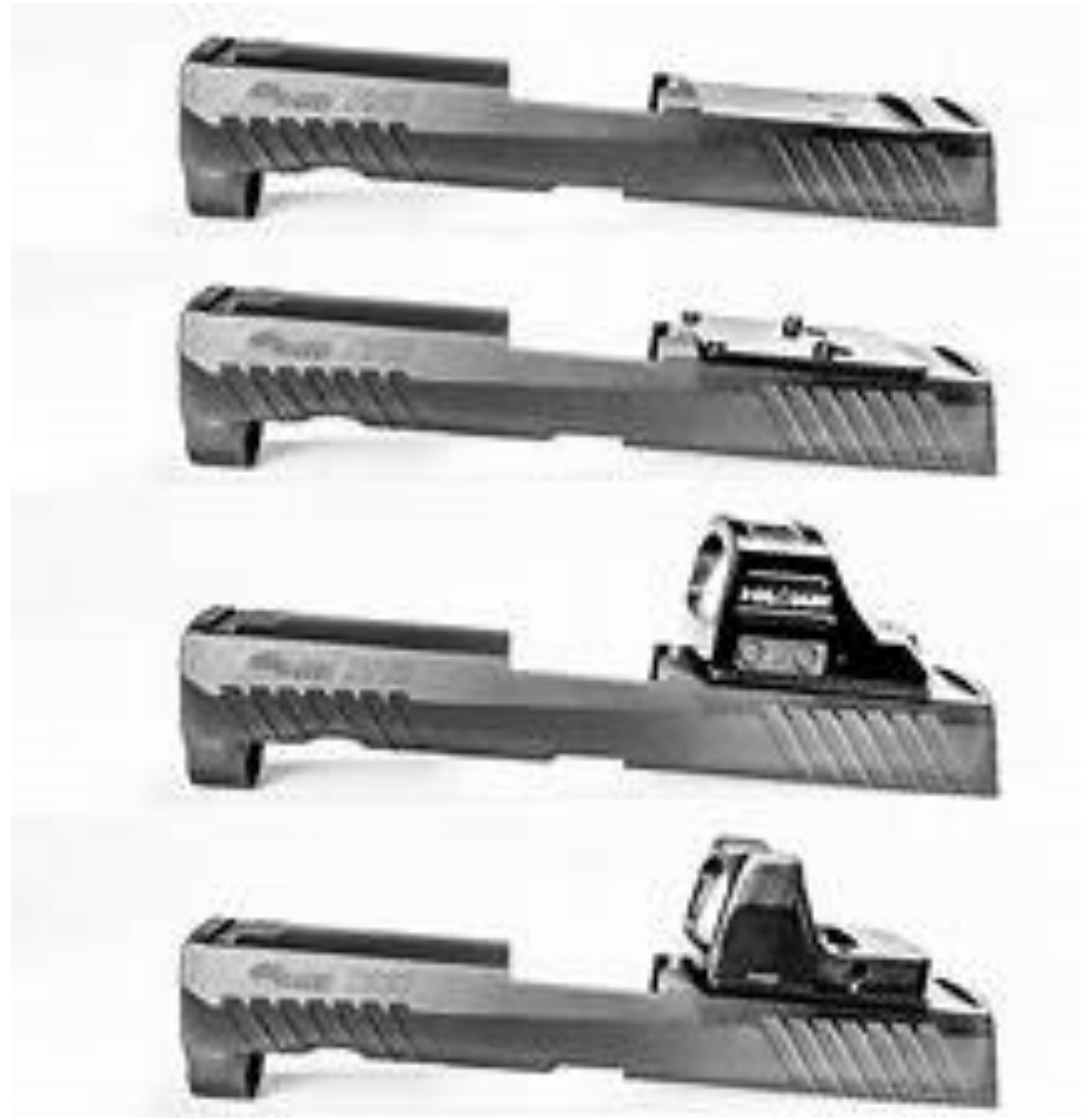
- Check mounting screws and torque lines.
- Ensure external battery compartment is closed.
- Inspect viewport and clean if needed.
- Change battery yearly.
- Inspect back-up sights are in good working order.

Care and Maintenance cont.

Optic Care

By adding an optic to the duty handgun, the department and individual officer must accept additional maintenance and care concerns. The MRDS that a department considers should allow for the easiest methods of preventative maintenance at the officer level, and servicing at the armorers or range master level. General care for the optic lens can be performed with a simple micro fiber cloth or q-tip, and lens coating with Rain-X or an anti-fog additive is advised. Even though fogging is not an extreme concern, in some regions its more possible and can easily be prevented with proper lens coating.

Battery life varies from optic to optic. The preferred optic for this paper, the Trijicon RMR, has a battery life of 2-5 years depending on use. It is advisable to replace batteries annually, as the incurred battery cost is minimal and the prevention of battery failure is greatly increased. It is recommended that battery replacement occur during annual qualification.



Torque Specs (Battery Compartment, Mounting Screws)

- Battery compartment 10-inch pounds
- Mounting screws 30-inch pounds



Torque Specs

- Romeo 1 Pro
- Romeo 2
- RMR
- Delta Point Pro
- Holosun 509
- Aimpoint ACRO
- 30 inch lbs
- 28 Inch lbs
- 9 inch lbs
- 25 inch lbs
- 15 inch lbs
- 27 inch lbs

Optic Mounting Procedure

- Thread locker



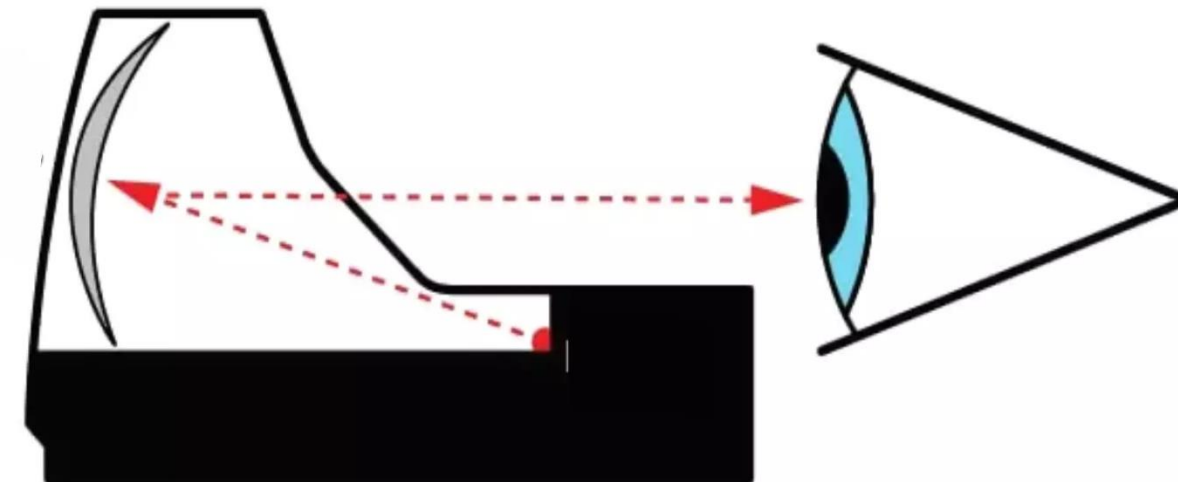
1. Degrease threads
2. 20 min set
3. 24-hour cure

- Torque wrench



Lens & Emitter Cleaning

Lens



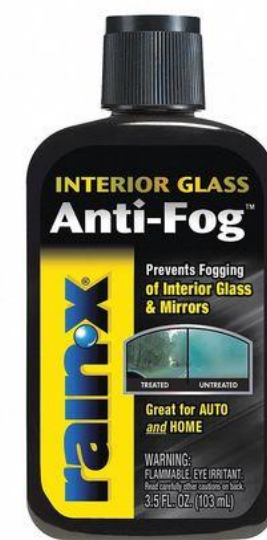
Emitter



Lens Cleaner and Battery Recommendations

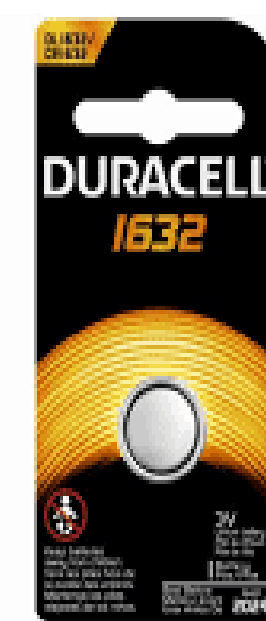
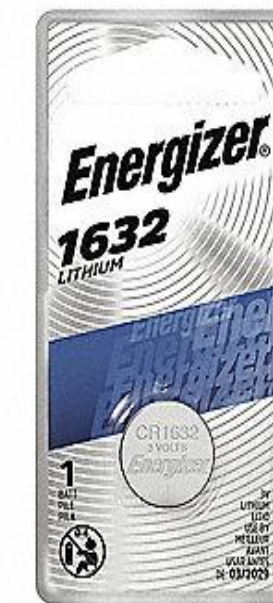
Lens cleaner

- Rain-X
- Cat crap
- Microfiber cloth



Battery recommendation

- Duracell 1632
- Energizer 1632

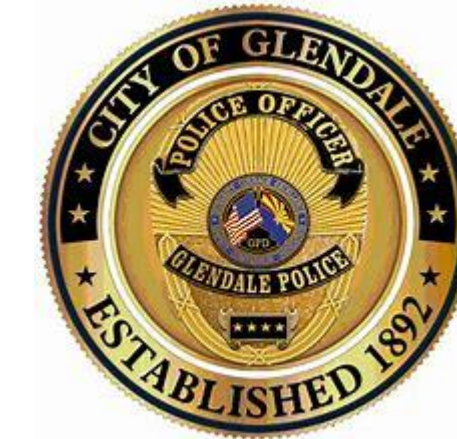


Holster Options



Holster Options

Agencies Trained



Zeroing Data & Sight Adjustment

Sight Adjustments

1 complete rotation = 4 inches @ 15 yards



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Parallax
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Tracking the dot
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Distance Shooting
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Policy & Training Considerations

Policy

- Equipment
 - Milled slide vs mounting plate
 - Holsters
- Training
 - Minimum recommended
 - 16 hrs/ 800 Rounds
- Maintenance
 - Lens maintenance
 - Battery replacement

Training

- Finding the dot
- Zeroing
- Parallax
- Malfunction clearance
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15 Yard Zero Data

124 Grain Bullet @ 1150 FPS

Range	Drop
0	-1.0
5	-0.6
10	-0.3
15	0.0
20	0.2
25	0.3
30	0.4
35	0.4
40	0.3
45	0.2
50	0.0

147 Grain Bullet @ 970 FPS

Range	Drop
0	-1.0
5	-0.6
10	-0.2
15	0.0
20	0.1
25	0.2
30	0.2
35	0.0
40	-0.2
45	-0.5
50	-0.9