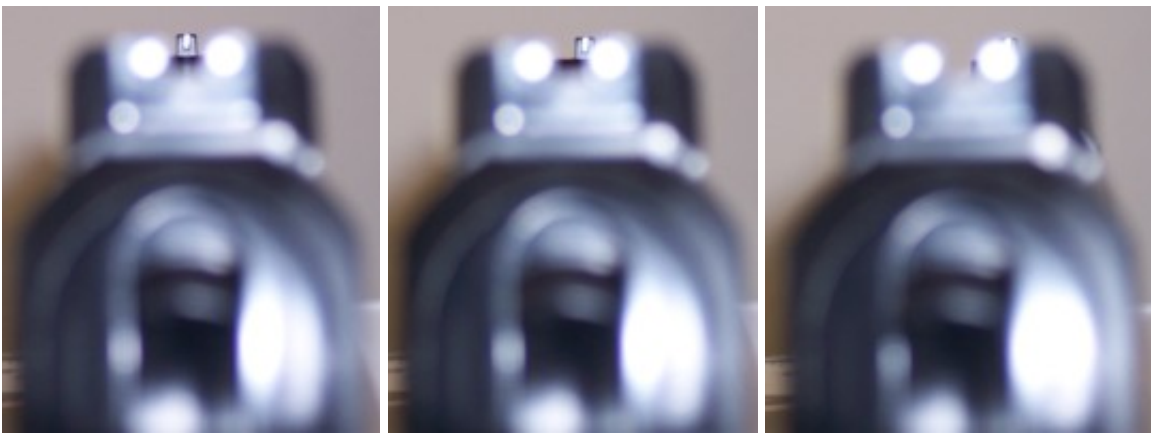


## SIGHT ALIGNMENT AND ACCURACY

Here are two sets of pics each showing: good **sight alignment**, 1/8 inch of error in sight alignment, and 1/4 in of error in sight alignment.



In the pics, the sight radius of the gun sights is 6.88 inches.

This table shows the amounts by which a bullet will be off target center at varying distances given varying amounts of sight alignment error. The table was made up using a sight radius of 7 inches.

As such, the results are very close to those using a sight radius of 6.88 inches.

<b>Muzzle Movement</b>	<b>1/8 in</b>	<b>2/8 in</b>	<b>3/8 in</b>	<b>4/8 in</b>	<b>5/8 in</b>
<b>Distances to Target</b>	<b>Amt. bullet will be off target center.</b>				
<b>5 feet</b>	<b>1 in</b>	<b>2 in</b>	<b>3 in</b>	<b>4 in</b>	<b>5 in</b>
<b>10 feet</b>	<b>2 in</b>	<b>4 in</b>	<b>6 in</b>	<b>8 in</b>	<b>10 in</b>
<b>15 feet</b>	<b>3 in</b>	<b>6 in</b>	<b>9 in</b>	<b>12 in</b>	<b>15 in</b>
<b>20 feet</b>	<b>4 in</b>	<b>8 in</b>	<b>12 in</b>	<b>16 in</b>	<b>20 in</b>
<b>25 feet</b>	<b>5 in</b>	<b>10 in</b>	<b>15 in</b>	<b>20 in</b>	<b>25 in</b>

For example: If the sights are 2/8 in. out of correct alignment, and you are at a distance of only 15 feet, you will miss a chest sized target (11 in wide x 17 in tall), .

Further, if a target was to turn sideways and/or move, it would be very very difficult to aim with the precision needed to make a hit. Practically speaking, that would be nearly impossible in the likely gunfight condition of bad light, or where the sights are dark and the target is dark, or the target is moving, or when firing multiple times with the gun jumping and bucking in your hand etc.. It's no wonder that shooting accuracy is as poor as it is, and why it makes sense to use an alternate shooting method like P&S.

Here's How The Table Values Were Determined:

1. The values are the actual values, or very close approximations.
2. Using the table "distances to the target" as radii, the circumference of a series of circles was determined. ( $c = 2 \times 3.1416 \times r$ )
3. Then the circumferences were halved to get the lengths of the 180 degree arcs corresponding to the distances. (For example 1/2 the circumference of a circle with a 5 foot radius is 189 inches. So each degree of arc equals just about 1 inch.)
4. The gun muzzle point was considered to be 7 inches out from zero. And 1/2 the circumference of a circle with a 7 inch radius is 22 inches or 176 1/8 inch segments. By chance, each of the 180 degrees of arc equals just about 1/8 inch. So and to improve understanding of the data, inches in eighths instead of degrees, were used on top of the gun muzzle movement columns to show gun muzzle movement off of center.
5. The muzzle movement amounts in 1/8 inches which are equal to degrees of arc, were used to determine the off of target center amounts at the different distances to target. For example, the

length of 180 degrees of arc of a circle with a 10 foot radius is 370 inches. So each degree of arc equals just about 2 inches ( $1/180 \times 370 = 2$ ). As such, if the muzzle is off of center by 1/8 inch or 1 degree of arc, the bullet strike will be 2 inches off of target center at 10 feet. And if the muzzle is off of center by 2/8 in, the bullet strike will be 4 in off of target center.

6. Because an arc is a curve rather than a line, the off of target center amounts shown are approximate values. However, they are very close to the exact amounts because the arcs at the distances shown, are very large relative to the off of target center amounts.

The table shows why most gunfights take place at distances under thirty feet. Only the exceptionally good shooter would be able to shoot well enough to hit a chest sized target at a distance beyond 30 feet.

With P&S, your chance of making a target hit will increase, and even at extended distances, as it is not necessary to try and have the rear of the gun stay in a relatively fixed position for sight alignment.

The sights will be correctly aligned as the barrel of the gun will be slaved to the index finger, and as such, it will be aimed at what the index finger is pointing at.

The table, also shows that handguns can be very effective at close range. And P&S can be a great help in such situations.

Unless there is a need for you to physically restrain a person, there is no reason to have a gun up close to that person. Up to a distance of 5 feet, the muzzle would have to be more than an inch off the target center for you to miss a chest shot. Also if the person is about five feet away, there will be less of a chance that the person will try and grab your gun or attack you.

The table also shows that it makes sense to turn sideways or semi sideways in a shooting situation if you can.

If you are half as thick from front to back, as you are wide from side to side, and you turn sideways, your chance of being shot will be reduced by 50 percent. Why give an adversary the largest possible target when he or she is trying to kill you?

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