

Natural Point of Aim

What does Natural Point of Aim mean?

A shooter's natural point of aim (**NPA**) is the location at the target where the sights "point to" when little or no muscular effort is applied to the rifle. In the prone position, the body's skeleton and the rifle sling is carrying the weight of the rifle, not the shooter's muscles. Therefore, the prone position is the easiest position to find NPA and understand its implications. Proper NPA will minimize shooter movement allowing for increased accuracy. One other main advantage of achieving NPA is that it minimizes fatigue when shooting a long course of fire. If "muscles" are used to point the rifle at the target the shooter will tire and shooting accuracy will decrease quickly.

Natural point of aim is not achieved if the shooter must apply pressure to the firearm to keep the sights aligned on the bullseye. Chances are the shooter's first try to get NPA will not be on a bullseye. **That is OK**. To get onto a bullseye, the "skeleton" of the shooter will need to be adjusted. How to adjust the skeleton (supporting structure) of the shooter will be shown.

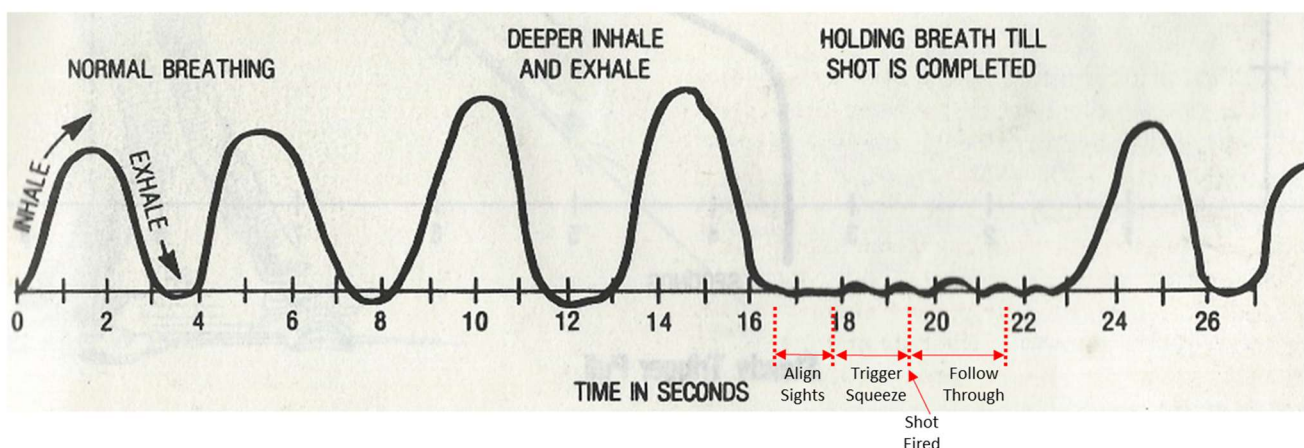
How to determine NPA in the prone position:

When the three (3) minute preparation period starts the shooter is allowed to get into the prone position. It may take about a minute to get comfortable performing the following:

- place the shooting gloved hand into position
- place the shooting arm's elbow close to being under the rifle
- Place the rifle stock into the shoulder properly
- find the proper cheek location and pressure onto the rifle stock to see through the sights
- make sure the rear and front sights are aligned
- continue to breathing normally to keep oxygen flowing into the body

Notice that being comfortable does not mean the rifle sights are aligned to a bullseye on the target. That is not needed yet.

Once comfortable, the shooter pretends to shoot (**do not load the rifle**). The shooter breathes as if they were going to shoot and hold their breath as shown below.

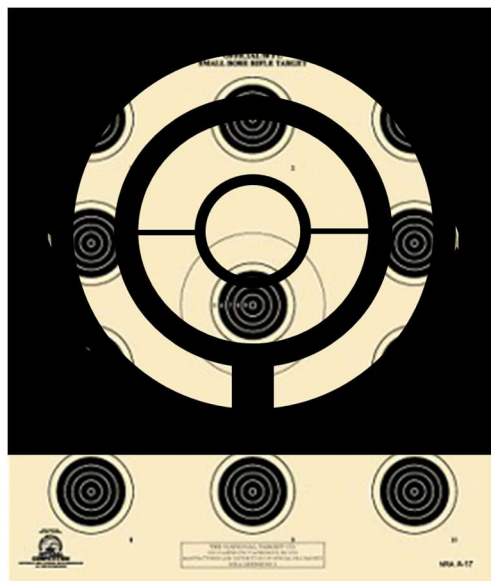


As the shooter begins to hold their breath, they gently close their eyes. Make sure not to move the rear/front sight alignment. Closing the eyes are important. This is because with visual inputs from the eyes, the shooter's brain will try to

point the sights at a specific location (like one of the bullseyes on the target). Closing the eyes make sure NPA is not “forced” by the brain. Before the shooter closes their eyes, their brain may subconsciously force a good sight picture as shown below. However this is a forced sight picture (muscled sight picture), not a true NPA:



Now with eyes closed, the shooter counts to “10”. The shooter then opens their eyes and looks down the sights. The rear and front sights should still be aligned. No movement of the shooter’s head occurred. The shooter then takes a quick mental picture of where the rear/front sights are aiming compared to the sighter bullseye. Only then does the shooter start to breathe normally again. The “new” sight picture may have looked like this:



The picture above is showing the shooter’s natural point of aim. It is actually high of the sighter bullseye (the goal). The next step is to move the shooter’s NPA to the sighter bullseye.

Moving the NPA “UP and Down”:

The shooter needs their NPA to align with the bullseye they are shooting. In this case, the shooter will want to move the NPA (the point where the rear and front sights are aiming) to align with the sighter bullseye.

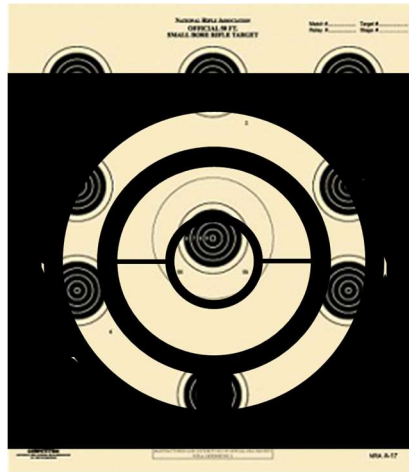


The Prone Position e

The picture above shows a shooter who also found their NPA high on the target and wants to move the NPA downward toward the sighter bullseye. To do this the shooter “pivots” around the sling arm elbow. In the picture above, the left elbow is the pivot point for a right handed shooter. Of course the right elbow is the pivot point for a left handed shooter. Remember, the **pivot point** never moves. The body moves around this point. To move the NPA down, the shooter “scoots” their body slightly forward while keeping the pivot point still.

When the shooter “feels” the rifle position was lowered enough, they start the NPA process all over again:

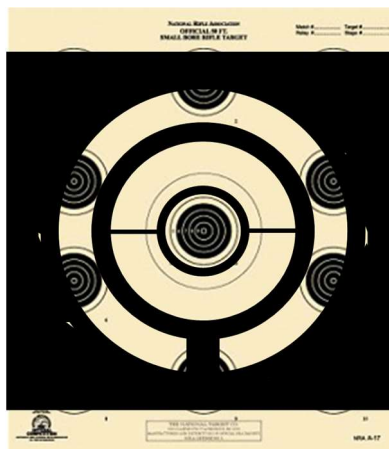
- a) Get comfortable
- b) Pretend to get ready to shoot a shot
- c) Breathe out and gently close the eyes (remove the brain’s effects on sighting)
- d) Count to “10”
- e) Open the eyes
- f) Remember where the sights are pointing
- g) Start to breathe normally



The shooter may find out the sight picture now looks like the above picture. In this case, the shooter moved forward too much. This is a typical action. To move the NPA up, the shooter must now scoot their body backward even more slightly “away” from the target. Again, remembering to not move the pivot point. The amount of movement required is very slight and will be different for every shooter. The shooter will improve their “guess” adjustments only with practice.

When the shooter “feels” the rifle position was raised enough, they start the NPA process all over again:

- a) Get comfortable
- b) Pretend to get ready to shoot a shot
- c) Breathe out and gently close the eyes (remove the brain’s effects on sighting)
- d) Count to “10”
- e) Open the eyes
- f) Remember where the sights are pointing
- g) Start to breathe normally



Now the shooter guessed correctly this time and sees the above sight picture. The shooter now has their NPA aligned with the sighter bullseye.

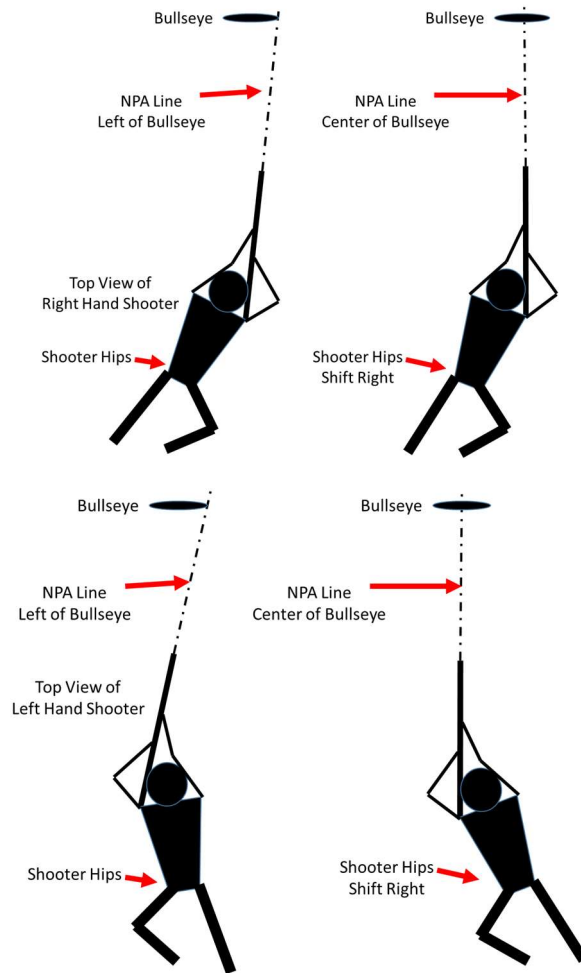
Success!

Practice will allow the shooter to perform this NPA procedure many times before the three (3) minute preparation period is over.

Move NPA left and right in prone position:

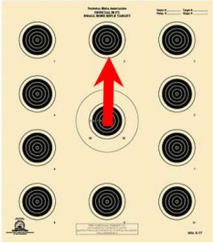


Suppose the shooter performs the NPA process and has the NPA seen in the picture above left. This is further illustrated in the picture above right. It shows how the shooter's NPA is just to the left of the bullseye. The NPA now needs to move to the left. The pivot point for LEFT/RIGHT is the same as UP/DOWN, the sling elbow. To move the NPA to the left, the shooter must shift (scoot) their hips to the right, pivoting around the sling elbow. This works for a left or right handed shooter (see figures below).

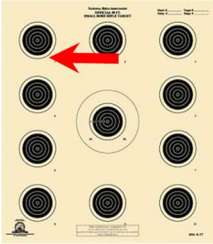


To move the NPA right, the shooter's hips need to shift left. Always pivot on sling elbow!

The following sequence of pictures shows the shooter's movements while shooting for record on the A-17 target. Assume the shooter starts in the sighter bullseye and has correct NPA there.



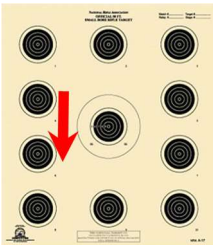
Sighter bull to top-center bull. Raise NPA, body moves away from target (backward)



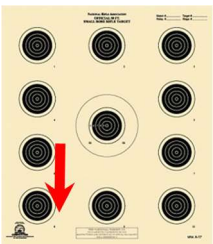
Top-center bull to top-left bull. Shift NPA to the left, shooter moves hips right



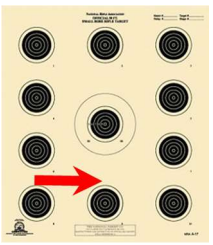
Move: top-left to second bull down. Lower NPA, body moves toward target (forward)



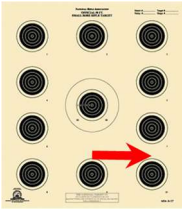
Move: second down to third bull down. Lower NPA, body moves toward target (forward)



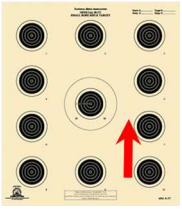
Move: third bull down to bottom left bull. Lower NPA, body moves toward target (forward)



Move: bottom left bull to bottom center bull. Shift NPA right, shooter moves hips left



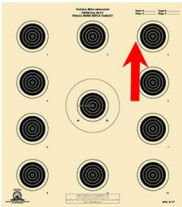
Move: bottom center bull to bottom right bull. Shift NPA right, shooter moves hips left



Move: bottom right bull to third bull down on right. Raise NPA by moving away from target (backward)

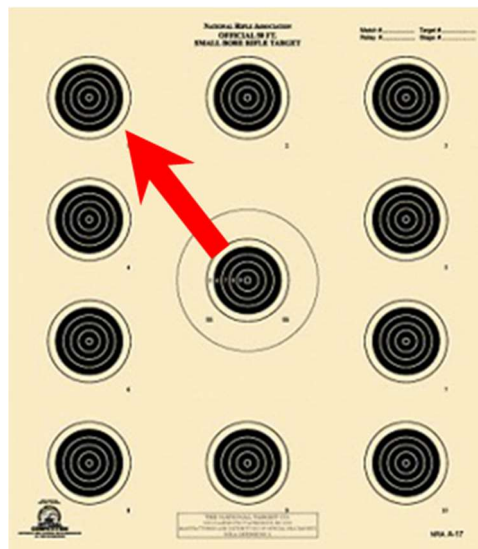


Move: third bull down to second bull down on right. Raise NPA by moving away from target (backward)



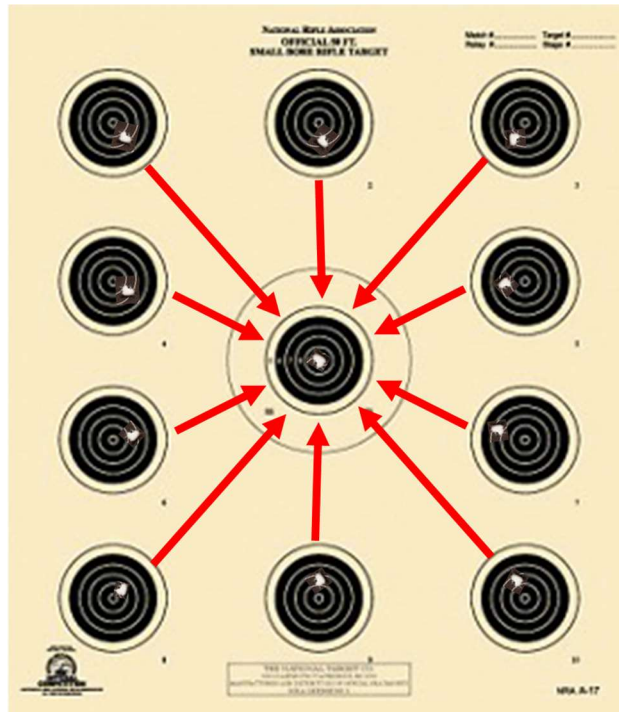
Move: second bull down to upper right bull. Raise NPA by moving away from target (backward)

Notice there is only one (1) movement between each record bullseye.



Assume the shooter were to move diagonally from the sighter to the upper left bullseye. Their body would have to move away from the target to move NPA up **and** move their hips right to move the NPA left. Two (2) moves will cause more chances in poor NPA guesses, resulting in inaccuracy.

As an example, assume you do not shift the NPA after shooting the sighter bullseye:



The NPA for this shooter was very good for the sighter bullseye (nice center shot group). As the shooter moved through the record bullseyes, the shots tended to favor in the direction of the sighter bullseye. Shots will always favor the real NPA of the shooter. Clicking the sights will only cause more problems. Clicking sights should be done to move groups. Since each of the bullseyes above had different impact locations, no groups were shot. Therefore sight adjustment does not help. Only checking for NPA will help.

In closing, remember to adjust NPA for each bull on the A-17 target to get smaller groups and higher scores.



The End

