

Lift, Aiming and Trigger Pull

By Vladimir Chichkov, Assistant National Pistol Coach

It is hard to set an order of importance for the elements ensuring great shooting. Yet, it is safe to say that in the dynamic 25m pistol disciplines, the following is a recipe for success: Lift, Aiming and Trigger pull. The synchronization of these three elements and the quality of their execution forms the foundation of successful shooting. To better understand this symbiotic conglomerate, let us simplify and discuss the separated elements in their chronology.

With the exception of the Precision stage in Sport and Center Fire Pistol events, the “Ready” position requires the hand with the pistol to be raised no more than 45 degrees. Before we aim and shoot, we have to lift our hand and put it in the aiming zone. Since we have very limited time for the shot (usually the first shot is done 1.40-2.70 seconds depending of the event) it is crucial to determine the goal and techniques necessary. We start with checking our position. In Men’s Rapid Fire Pistol, the goal is to immediately align the pistol with the (first) target when the hand is raised. It is important to find the proper positioning to avoid major horizontal adjustments after the hand is raised. After the position is found, mark it on the floor for a reference points for training/competition. If there is need, small adjustments can be done later.

Now we are ready to execute the lift. Every lift starts with aiming at the target. The idea is to let the brain know what the goal is—alignment of the sights, position on the target and situate the system “sights-target” in the surrounding. Having a clear picture of the goal makes the lift easier and faster. Next, lock the wrist and the elbow, lower your hand and assume the ready position and wait for the command. When lowering the hand, the vertical alignment of the sights will change; however, because the hand is “locked” when we lift it back to the shooting position, the alignment will be proper again. Do not try to adjust the sight in the ready position since it will change the system and you will have to readjust the aiming in the process of lifting.

The lift itself is divided in two phases: reaction and aiming. The reaction phase starts with the green light (opening the target if

mechanical) and the goal is to raise the gun as fast as possible. The aiming phase is when we align the sights and position them in the desired aiming area. There are two techniques that are used. The first involves quickly raising the gun to the center of the target, then making small aiming adjustments prior to the shot. I am not a fan of this technique because if your hand moves very fast it is difficult to stop at the desired point—the hand will bounce up and down and prolong the reaction phase. When you aim you will have to overcome these bouncing movements. As a result, the aiming phase is drawn out as well. These delays cause unsatisfactory shots as the athlete grows impatient and often jerks the trigger because he or she was preoccupied with the time limit.

In my practice, I prefer a shorter reaction phase that slows down and smoothly transition into the aiming phase. The aiming phase is actually performed on the go. For example, picture that the reaction phase starts between 45 degrees to 75 degree and then the aiming phase occurs from the previous point to 90 degrees as illustrated in Figure 1.

How is it done in practice? The hand is lowered in ready position and locked. The focus is on the green light (or on

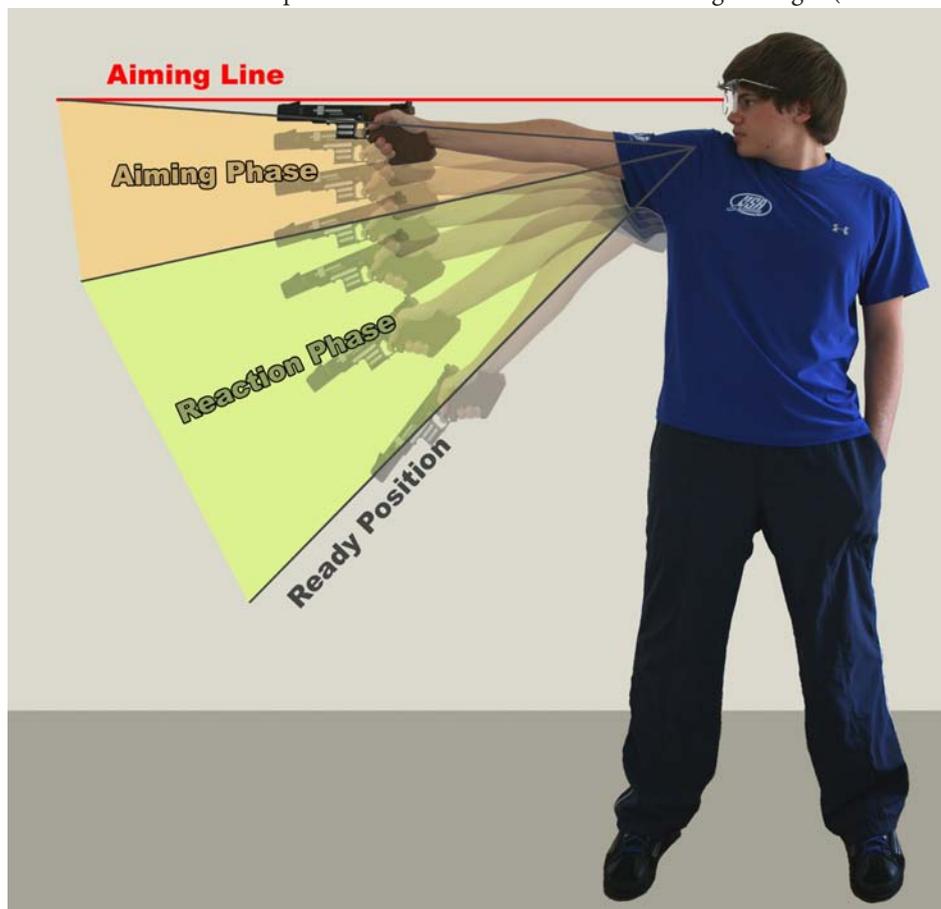


Figure 1: Alex Chichkov demonstrates the phases & focus for a pistol lift in a dynamic event.

the target if mechanical). When the green light illuminates, the hand is quickly raised and the focus moves to the sights when the hand is at approximately 75 degrees. At this moment, the movement of the hand is slowed and the shooter begins observation of the vertical alignment of the sights. As the hand approaches the center of the target, the hand continues to slow down. The goal is that when the sight line reaches the center of the target, the sights will be perfectly aligned. This is the exact moment when the shot breaks.

Often, I am asked if the gun actually stops in aiming position. No it does not because the movement is extremely slow at the end and the shot itself “cuts” the movement. However there are shooters who stop and aim for the “duel” part of the Sport and Center Fire Pistol disciplines. Some shooters even pause and aim during the six and eight second series in the Rapid Fire event. I recommend to train without stopping and strive for building a good coordination between, lift, aiming and pulling the trigger. When shooting the Sport and Center Fire Pistol duel, after the shot is completed, follow through and readjust aiming to prepare for the next shot. If the athlete is shooting Rapid Fire or Standard Pistol, then continue with the four additional shots for that series.

When executing the lift, remember that the movement is from the shoulder only. The torso is moving as is necessary to compensate for the change in the center of gravity from the lifted hand with the gun. The horizontal transition between the targets in the Rapid Fire event is a result of rotation from the hips, and does not involve movement from the shoulder. Remember that for Rapid Fire and the Duel events, shooters should aim at the center of the target; whereas, in precision events the aiming point is sub-six o'clock. This change requires adjustments between the precision and Rapid Fire stage in Sport and Center Fire Pistol events.

The aiming starts during the second phase of the lift. Pay attention to the horizontal alignment in the beginning, and if your hand is locked the horizontal alignment will be accurate when you are really close to the aiming point. When the green light turns on, quickly transfer your focus from the light to the sights of the pistol. The goal is to keep a clear picture of the sights so your brain can subconsciously make the adjustments for the position of the sights.

A reaction cycle includes seeing, analyzing, making a decision for muscle movement, executing the movement and the final result. The entire process takes approximately .02-.25 seconds. If we try to consciously control of all of our movements (balance, hand lift, aiming etc.) we are only able to accomplish four to five reactions in a second. Whereas subconsciously, the brain and body can perform four to five times more tasks in the same amount of time. In order to be successful, the best option is to continuously provide the brain with a clear picture of our sights.

Another important aspect to understand is the role of the peripheral vision. While the central vision is occupied with the sights, the peripheral is accounting for the surrounding and the position of the targets. The more obstructed the peripheral vision is, the less able the central vision is to stay focused on the sights. To increase the peripheral vision, I recommend

a smaller screen for covering the central vision of the non-dominant eye. For the same reason I would avoid the use of aperture installed on the shooting glasses when practicing any of the dynamic 25m pistol events. I recommend the use of visors and other allowable devices to reduce the amount of direct light entering the eyes so the pupils are as open as possible.

The third element to consider is the trigger work. It is possible to write a book on how to pull the trigger correctly, but the abbreviated version is that any trigger pull that does not affect the alignment of the sights and delivers the shot as close as possible to the perfect moment, is considered the correct trigger pull. In this era, shooters can experiment with both mechanical and electronic triggers and single and two stage triggers. A shooter can adjust the length of the trigger, the weight of the stages, their travel, reset properties and shoe position. I understand the difficulties coming out of having too many choices, but I do not have a “golden” trigger set recipe. One has to experiment and find his or her own preference. Just make sure to abide by the limits of the specific equipment you are using and competition regulations. Also, don't forget to periodically check your trigger weight—especially prior to a competition. The temperature and the weather can affect the physical qualities of the trigger mechanism. Also travel, the vibrations can cause the screws to move and change the tension.

Developing proper techniques and habits in executing the lift, the aiming and pull of the trigger will make it easier to train and develop solid coordination between these elements. Once mastered these fundamentals can help lead to a successful shooting career. Good luck and shoot straight.

www.targettalk.org

**THE PLACE TO GO TO BUY/SELL/TRADE
OLYMPIC/INTERNATIONAL
GUNS AND EQUIPMENT.**

Visit the best discussion forums for
Olympic/international shooting, youth programs,
guns, gear and equipment.