

IBC Location/ date: _____

Shoot Boss: _____

Instructors: _____

Attendees/IITs (Names and screen names):

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INSTRUCTOR BOOT CAMP POI:

Current as of November, 2009

This POI is based on a **two day IBC**. It attempts to cover all the material necessary for the new instructor to teach basic rifle marksmanship at subsequent Appleseed events.

It is very detailed to leave little leeway for variations in the fundamentals and standard calls and practices.

This should produce IIT's who are quite consistent no matter where they may attend the IBC.

NOTICE! The IBC includes the Appleseed which follows it. The two are inseparable and both must be completed before an IIT level can be assigned.

PREREQUISITES:

Requirements to attend an IBC are: Ability to consistently shoot a Rifleman score (210) or better and have attended an Appleseed event.

After successfully completing the IBC and receiving a positive IEF the candidate will be placed at an IIT level by the Appleseed Shoot Boss commensurate with their abilities. (IIT3 being the goal)

Shoot Boss, Pre & Post event duties:

In addition to normal "Appleseed" duties, the Shoot Boss will contact all registered attendees well in advance to ensure that they have access to the study materials required and are studying the history required to participate in the presentations required.

It is strongly suggested that they have read Fischer's "Paul Revere's Ride" before the event to be familiar with the events of 19 April, 1775.

Equipment, (Rifles, slings, laser bore sighter, visual aids, targets, mats, etc), should all be arranged in advance for a smoothly run event.

Instructor Evaluation Forms:

The Shoot Boss will complete an IEF detailing performance at the IBC and the Appleseed for each IIT and send it to each attendee.

NOTE: If the IBC SB cannot be present at the Appleseed following the IBC the IEFs must be "split" with the Appleseed SB so that the IIT will have reference to both. The IITs level will be assigned based on these two by the Appleseed SB.

DAY ONE:

Chorus line: (repeat and quiz throughout the day)

The four safety rules. (IIT's to learn them verbatim)

1. Always keep the muzzle in a safe direction.
2. Do not load until given the load command.
3. Keep your finger off the trigger until the sights are on the target.
4. Make sure those around you follow the safety rules.

Safe means:

1. The magazine is out
 2. The bolt is back
 3. The safety is on
 4. The chamber flag is in
 5. The rifle is grounded
 6. Nobody is touching the rifle
- * Additionally, SKS rifles should have the magazine well open

The six steps to firing the shot (IIT's to learn them verbatim)

1. Sight alignment
2. Sight picture
3. Respiratory pause
- 4a. Focus your eye on the front sight
- 4b. Focus your mind on keeping the front sight on the target
5. Squeeze the trigger
6. Follow through: Hold the trigger back and take a mental snapshot of where the front sight was when the shot broke. (Call the shot)

Line commands (IIT's to learn them verbatim)

Shooters! Your (XX minute) preparation period begins now!
Shooters! Your preparation period has ended!

(Non transitions: With (XX) rounds, Load!)

(Transition stages: Safeties on!.....Stand!)

Is the line ready?
Ready on the right?
Ready on the left?
All ready on the firing line!
Fire!

Cease fire! Cease fire! Cease fire!
Unload and clear!
Is the line clear on the right?
Is the line clear on the left?
The line is clear, the line is clear!
Shooters may proceed down range to check (Score/ Post) your targets!

History:

Emphasis will be placed on HOW to present the history, not what to present. When giving examples of things that took place on 19 April, 1775, get the IITs involved, (TPI), by asking them to link what you just said to us today. This should cause them to think about the events and place them in perspective. All history will be presented with the respect it is due. Among the topics to present and discuss first are: (Suggestions)

- *Events **leading up to the raid** on Concord
 - *Actions of the **British army** on April 18, 1775
 - *Actions of the **Colonists** on April 18, 1775
 - *Events during the **march** to Lexington
 - *Events at **Lexington Green**
 - *Events on the **march to Concord**
 - *Events at the **North Bridge**
 - *Events **after** the North Bridge
 - *Events at **Meriams Corner**
 - *Events during **the retreat**
 - *Events at **Lexington** (during the retreat)
 - *Actions of **General Percy** and **William Heath**
 - *Events at **Menotomy**
 - *Events at **Cambridge**
 - *Actions by **Timothy Pickering**
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All the things required to shoot well boil down to these 3 steps:

1. Build a good, solid position
2. Find the NPOA and bring it onto the target
3. Execute the 6 steps of firing the shot

Have the participants repeat this. Their understanding of it is crucial.

Modules of instruction will not necessarily follow the sequence seen during an Appleseed because of combining of some training events due to time constraints. The IIT's first hand knowledge of how an Appleseed is run should prevent any confusion.

Building the position:

A proper position is the key to a successful outcome of all other instruction. Without building a proper position, all other skill sets are for naught. Therefore it is imperative that a good basic position be taught and constantly corrected until the shooter can assume each position automatically and without thought.

Slight variations in the positions will be noted, and are the result of body geometry which varies from person to person. But the basic position, containing all the steady hold factors, is a must if the shooter wishes to improve their shooting skills.

It is important that EVERY participant present EACH position with all the Steady Hold Factors, (SHFs). This will allow them to gain experience in the verbiage and sequence, corrected each time until they have a good presentation by the end of the course.

Every SHF may not apply to each position, but should be taught anyway to ingrain the practice to look for each one, no matter what the position, in the proper sequence. (All SHFs the same with the addition of the butt raised to meet the cheek in the standing position)(For instance, the trigger side elbow in the prone position doesn't have much choice but to be planted, but it is important to teach it so IITs will look for the trigger side elbow on other positions where it has a specific position or function. **Teach a single set of SHFs, not a different set for each position**)

The SHFs should be taught first as HOW TO TEACH THEM, then as WHAT ADDITIONAL THINGS TO LOOK FOR, (Items in parenthesis), with emphasis on which is which. In other words, teach the SHFs first, in sequence, ensuring the IITs understand this is how it's taught. Then stop, denote that this next module is NOT things to teach, but things they should look for in the position, such as relaxed support side foot, not up on the toe, etc.

A good grasp on the SHFs is essential for the later module for Troubleshooting on the line, so it is important to make sure each attendee can recite them verbatim.

For time constraints, demonstrate each position to the entire group, then break into groups of no more than 4 with an Instructor to monitor each group as they demonstrate each position.

Nearly the entire first day is devoted to positions and Steady Hold Factors. It is that important.

Demonstrating and explaining the positions:

(Equipment required: A rifle with adjustable sling for each group of IITs, Laser bore sighter)

Prone Position:

The prone position is the basis for initial instruction. It is the most stable position, and should always be used when sighting in.

Sling use, prone:

The Hasty sling:

While standing, (For best observation), hold the rifle horizontally with the trigger hand, and show proper sling length, (About a hand span between trigger guard and sling). Now raise it vertically until the trigger hand is about eye height. Reach through the lower part of the sling as if trying to reach a distant object. With the sling lying flat against the back of the shoulder, hold tension by pulling the rifle away from the shoulder. Reach under the sling, sweeping in a circular motion, placing the hand between the rifle and the sling. Rotate the rifle into the shooting position. Keep the sling as high on the arm as possible.

***Demonstrate** and explain how to get into a hasty sling from prone.

*** Demonstrate** how to adjust to maintain the proper “snug” tension and geometry.

***Explain** the advantages and disadvantages of the hasty sling.

The Loop sling:

While kneeling, (For safety and best observation), place the rifle butt on the ground and the barrel against the shoulder pocket with both hands in front of the rifle. Disconnect the lower sling clip and pull the loop from the buckle. While holding the sling flat, as it would lie naturally, twist the sling one half turn to the right, (if right handed), and slide the loop up above the bicep.

***Explain** why the loop must be above the bicep.

***Point out** that the clip is on the outside of the arm.

*** Demonstrate** how to adjust for the proper tension in position.

***Explain** the advantages and disadvantages of the loop sling.

The 1907 sling:

If possible, **demonstrate** the hasty and loop slings using the 1907 sling as above. Instructors should be familiar enough with the 1907 sling to be able to coach the occasional user he will see at an Appleseed event.

*If possible, introduce the concept of making other types of slings work. There will be many slings which will be difficult, if not impossible to adjust, which may be adapted to field use.

Words to use: “Snug” sling, not “tight” sling,
“Rifle”, instead of “weapon”, “gun”, etc.

Addressing the target:

***Explain** and demonstrate how to “Index” by standing at an angle to the target, toward their trigger hand side. Suggest starting with about a 30 degree angle.

Steady Hold Factors of the prone position: (Demonstration)

What is taught/ (What we look for)

***Support hand-** The forward hand should be open, relaxed, cradling the forestock. (Lying along the “lifeline” of the palm, resting on the heel)

***Support elbow-** The forward arm should be resting on the back side of the elbow and as far under the rifle as possible. (Some rifles will have long magazines preventing the elbow from being directly underneath the rifle. In this case, the forearm should just touch the side of the magazine enough to “index” there, without canting the rifle or interfering with the shot)

***Sling position/ tension:-** The sling should be under the back of the hand and as high above the bicep as possible. It should be snug and properly adjusted. (More tension will raise the shooter’s forward arm and front sight, less will lower them. Too much tension on a hasty sling will not allow the rifle to be brought up high enough in the shoulder pocket. Too loose and the shooter cannot relax into the support of the sling. Do not allow shooters to “lie” on their rifles, nor “monopod” on a magazine)

***Support side leg-** The support side leg should be straight and aligned with the spine. (The toes should be turned in or out as desired, but the foot should be relaxed so as not to influence elevation)

(CHECK FOR CANTING)

***Point out** what canting the rifle looks like and explain the cause and effects of canting and how to twist the cant out with the trigger hand or adjust the sling.

*Trigger side leg- The trigger side knee should be drawn toward the rifle as far as possible. (The shin approximately parallel to the rifle. This accomplishes two things: it rolls the shooter up slightly, off the belly, allowing them to breathe easier, and it also helps to absorb recoil to maintain position, ie, NPOA)

*Trigger side elbow- The trigger side elbow should be planted with enough weight to maintain the position under recoil and spaced properly reference the weak side elbow. (Shooters tend to “bipod” with their elbows, (equal angle, equal weight), so look for this common error)

*Trigger hand grip- The trigger hand grips the stock with a “firm handshake” grip, using the three lower fingers, pulling the butt rearward into the shoulder pocket firmly.

*Trigger finger- The trigger finger is not “dragging wood”. (Introducing new terminology)(Contact on the trigger being low and in the middle of the finger’s first pad)

*Turkey neck- (Introducing a new concept)

The head is pushed forward to its full extent, creating a consistent point of reference and sight picture. (This also helps prevent “scope eye”)

*Cheek weld- The cheek is placed firmly against the buttstock after “turkey necking” with the eye perfectly aligned with the sights and contact is maintained throughout the string of fire. (Shoulders should be approximately level for average build and properly fit stock)

*Once the position is correct, **demonstrate** checking for vertical movement of sights during respiration with step three and adjust support elbow as necessary.
(Laser Bore Sighter demonstration)

Shooter geometry:

Each shooter has a different shape and size, (geometry). Since the rifle is a fixed size, they will have to vary their body geometry to work with the rifle. Taller shooters can nearly face the target, as their longer arms will allow them to keep the rifle almost directly in front. Shorter shooters will need to have more angle, reference to the target. This will allow them to draw the rifle across the centerline of their body at a greater angle, effectively shortening the rifle. Short people with long rifles will require the greatest angle, Tall people with short rifles, the least angle.

NPOA, prone; how to find it, how to place it on the target:

***Explain** what NPOA is. “Where your relaxed body naturally wants to place the shot”. Emphasize “relaxed position”, no muscle input.

***Demonstrate** how, using the first 3 steps of the six steps to firing the shot, the NPOA is determined: **The NPOA drill is:** sight alignment, sight picture, close the eyes, inhale, exhale, relax, allow things to settle. Upon opening the eyes, the NPOA is where the sights are. Just shift the body to get it to coincide with the target. (Forward elbow is the anchor and all movement is about this point)

(Laser bore sighter demonstration: Have shooters “talk” you to the target by shifting hips)

***Demonstrate** “Carding the sights”: Using a piece of paper, business card, etc, have the shooter take a correct prone position. Have them accomplish the NPOA drill, (First 3 steps), place the card in front of, (Target side of), the front sight. This removes vision from the process. Allow things to settle then remove the card.

Explain that where the sights are is their NPOA. Now have them shift their hips, left or right and repeat the drill. When they have windage correct, repeat for elevation. When they have both correct, have them repeat the NPOA drill and tell you when the sights are exactly on the target. Place the card in front of the front sight again. Wiggle the rifle a bit, allow things to settle, and lift the card. If the sights are still on the target their NPOA is on the target.

If you suspect a **sight alignment** (Or cheek weld) **problem** carding the sights can help you diagnose it:

Have the shooter do the NPOA Drill. Place the card behind the rear sight so there is no reference to sight alignment. When they open their eyes ask them if the sights are still exactly aligned. If not, they should get or maintain a better cheek weld with the sights aligned. Recheck them until they have cheek weld/ sight alignment correct.

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Sitting/ kneeling positions:

Not all shooters have the same build and flexibility and will have to determine for themselves what “stage 2” position suits them best. We will teach all the acceptable positions in order from the most stable to the least stable. (Suggest loosening belt)

Sitting, crossed legged:

Sling use, sitting:

***Demonstrate** how to use the hasty sling, seated. (TPI)

***Demonstrate** how to use the loop sling seated. (TPI)

***Explain** that a slight sling adjustment may be needed from the shorter prone sling position.

Addressing the target:

***Explain and demonstrate** how to address the target. Stand facing the target and turn about 30 degrees to the trigger hand side. This is a good starting angle, but it may have to change based on individual shooter geometry.

How to get into a sitting position:

***Explain and demonstrate** how the cross legged position is built. Sit and tuck the trigger side foot under the weak side shin, placing elbows on target side of knees.

Shooter Geometry:

***Explain** how varying shooter geometry drives placement of elbows and knees. Suggest that the shooters place the elbows where they should be and move the knees to meet them there. A lower position is more stable. Elbows should be on the target side of the knees.

***Demonstrate** how to raise and lower the knees by sliding the feet closer together or further apart.

***Explain** that this should be a relaxed position; the shooters should not be holding the legs up with muscle.

Determining the proper angle:

As with the prone position, shooter geometry will determine the angle of the position with reference to the target. Tall shooters will have to more nearly face the target, while shorter shooters will have a greater angle. The instructor will have to suggest changes until the shooter arrives at a good sitting position, taking into account their build, rifle, and flexibility. Of course, not all shooters will be able to get into a proper cross legged position.

Steady hold factors of the cross legged position:

*Support hand:

The forward hand should be open, relaxed. (Lying along the “lifeline” of the palm, resting on the heel)

*Support elbow:

The forward elbow should be on the target side of the knee, as far under the rifle as possible. (The “flat” of the back of the arm should rest on the “flat” of the knee for maximum surface area contact) (Elbow may not be under the rifle, NPOA will determine it’s position)

*Sling position:

The sling should be across the back of the hand and be above the bicep. It should be snug and properly adjusted. (More tension will raise the shooter’s forward arm and front sight, less will lower them. Too much tension on a hasty sling will not allow the rifle to be brought up high enough. Too loose and the shooter cannot relax into the sling)

(CHECK FOR CANTING)

Instructors should **point out** that canting is a side effect of this position, and that all efforts to keep the rifle plumb should be used even though the body is leaning forward.

***Explain** how to “twist out” the cant using the trigger hand.

*Trigger side elbow:

The trigger side elbow should rest with the “flat” on the back of the arm contacting the “flat” of the leg on the target side of the knee.

*Trigger hand:

The trigger hand should grip the stock with a firm “handshake” grip, pulling it back firmly into the shoulder pocket firmly.

*Trigger finger:

The trigger finger is not dragging wood. (Contact on the trigger being low and in the middle of the finger’s first pad)

*Turkey neck:

The head is pushed forward to its full extent, creating a consistent point of reference and sight picture.

*Cheek weld:

The cheek is placed firmly against the buttstock after “turkey necking” with the eye perfectly aligned with the sights and contact is maintained throughout the string of fire.

NPOA, sitting; how to find it, how to place it on the target:

***Emphasize** “relaxed position”, no muscle input.

***Demonstrate** how, using the first 3 steps of the six steps to firing the shot, the NPOA is determined.

The NPOA drill is: (The first 3 steps of firing the shot!) Sight alignment, sight picture, close the eyes, inhale, exhale, relax allowing things to settle. Upon opening the eyes, the NPOA is where the sights are. Just shift the body to get it to coincide with the target.

(Shift the bottom clockwise or counter clockwise to achieve proper windage, for elevation raise or lower the knees by sliding feet closer or further apart, or slide the elbow up or down on the forward knee, or slide hand fore and aft along the forestock. In some instances, more than one may be needed to gain proper elevation)

***Demonstrate** “Carding the sights” as with the prone position.

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Sitting , crossed ankle:

Sling use:

***Demonstrate** how to use the hasty sling, sitting, crossed ankle. (TPI)

***Demonstrate** how to use the loop sling sitting, crossed ankle. (TPI)

***Explain** that a slight sling adjustment may be needed from the previous sling position.

Addressing the target:

***Explain and demonstrate** how to index to the target. Stand facing the target and turn about 30 degrees to the trigger hand side. This is a good starting angle, but it may have to change based on the individual shooter.

How to get into a crossed ankle position:

***Explain and demonstrate** how the crossed ankle position is built. Sit and tuck the trigger side foot under the weak side ankle.

Shooter Geometry:

***Explain** how varying shooter geometry drives placement of elbows and knees. Suggest that the shooters place the elbows where they should be and move the knees to meet them there. Elbows should be on the target side of the knees.

***Demonstrate** how to raise and lower the knees by sliding the feet closer together or further apart. This should be a relaxed position, shooters should not hold their legs up using muscle.

Determining the proper angle:

As with the cross legged position, shooter geometry will determine the angle of the position with reference to the target. Tall shooters will have to more nearly face the target, while shorter shooters will have a greater angle. The instructor will have to suggest changes until the shooter arrives at a good sitting position, taking into account their build, rifle, and flexibility. Of course, not all shooters will be able to get into a proper crossed ankle position.

Steady hold factors of the crossed ankle position:

***Support hand:**

The forward hand should be open, relaxed. (Lying along the life line of the palm, resting on the heel)

***Support elbow:**

The forward elbow should be on the target side of the knee. (The “flat” of the back of the arm should rest on the “flat” of the knee for maximum surface area contact)

***Sling position:**

The sling should be under the back of the hand and should be above the bicep. It should be snug and properly adjusted. (More tension will raise the shooter’s forward arm and front sight, less will lower them. Too much tension on a hasty sling will not allow the rifle to be brought up high enough. Too loose and the shooter cannot relax into the sling)

(CHECK FOR CANTING)

***Trigger side elbow:**

The trigger side elbow should rest with the “flat” on the back of the arm contacting the “flat” of the leg on the target side of the knee.

***Trigger hand grip:**

The trigger hand should grip the stock with a firm “handshake” grip, pulling it into the shoulder pocket firmly.

***Trigger finger:**

The trigger finger is not dragging wood. (Contact on the trigger being low and in the middle of the finger’s first pad)

***Turkey neck:**

The head is pushed forward to its full extent, creating a consistent point of reference and sight picture.

***Cheek weld:**

The cheek is placed firmly against the buttstock after “turkey necking” with the eye perfectly aligned with the sights and contact is maintained throughout the string of fire.

NPOA, sitting crossed ankle; how to find it, how to place it on the target:

***Emphasize** “relaxed position”, no muscle input.

***Demonstrate** how, using the first 3 steps of the six steps to firing the shot, the NPOA is determined: Sight alignment, sight picture, close the eyes, inhale, exhale, relax, allow things to settle. Upon opening the eyes, the NPOA is where the sights are. Just shift the body to get it to coincide with the target.

(Shift the bottom clockwise or counter clockwise to achieve proper windage, for elevation raise or lower the knees by sliding feet closer or further apart, or slide the elbow up or down on the forward knee, or slide hand fore and aft along the forestock. In some instances, more than one may be needed to gain proper elevation)

***Demonstrate** “Carding the sights” as with the sitting position.

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Sitting, Open legged:

Sling use, sitting, open legged:

***Demonstrate** how to use the hasty sling, seated, open legged. (TPI)

***Demonstrate** how to use the loop sling seated, open legged. (TPI)

***Explain** that a slight sling adjustment may be needed from the previous sling position.

Addressing the target:

***Explain and demonstrate** how to index to the target. Stand facing the target and turn about 30 degrees to the trigger hand side. This is a good starting angle, but it may have to change based on the individual shooter.

How to get into a sitting open legged position:

***Explain and demonstrate** how the open legged position is built. Sit and place the feet in front, (A little more than shoulder width apart), and keep the feet straight in front of the knees, (Constant angle from the hips to the feet). The feet should be flat on the ground if possible.

Shooter Geometry:

***Explain** how varying shooter geometry drives placement of elbows and knees. Suggest that the shooters place the elbows where they should be and move the knees to meet them there. A lower position is more stable. Elbows should be on the target side of the knees. The forward knee may almost point at the target.

***Demonstrate** how to raise and lower the knees by sliding the feet further out or closer in.

***Explain** that this should be a relaxed position, the shooters should not be holding the legs up with muscle. The feet should be far enough out to accomplish this.

Determining the proper angle:

As with the cross legged and cross ankle position, shooter geometry will determine the angle of the position with reference to the target. Tall shooters will have to more nearly face the target, while shorter shooters will have a greater angle. The instructor will have to suggest changes until the shooter arrives at a good open legged position, taking into account their build, rifle, and flexibility. Of course, not all shooters will be able to get into a proper open legged position.

Steady hold factors of the open legged position:

***Support hand:**

The forward hand should be open, relaxed. (Lying along the “lifeline” of the palm, resting on the heel)

***Support elbow:**

The forward elbow should be on the target side of the knee. (The “flat” of the back of the arm should rest on the “flat” of the knee for maximum surface area contact)

***Sling position:**

The sling should be under the back of the hand and should be above the bicep. It should be snug and properly adjusted. (More tension will raise the shooter’s forward arm and front sight, less will lower them. Too much tension on a hasty sling will not allow the rifle to be brought up high enough. Too loose and the shooter cannot relax into the sling.

(CHECK FOR CANTING)

***Trigger side elbow:**

The trigger side elbow should rest with the “flat” on the back of the arm contacting the “flat” of the leg on the target side of the knee.

***Trigger hand grip:**

The trigger hand should grip the stock with a firm “handshake” grip, pulling it back into the shoulder pocket firmly.

***Trigger finger:**

The trigger finger is not dragging wood. (Contact on the trigger being low and in the middle of the finger’s first pad)

***Turkey neck:**

The head is pushed forward to its full extent, creating a consistent point of reference and sight picture.

***Cheek weld:**

The cheek is placed firmly against the buttstock after “turkey necking” with the eye perfectly aligned with the sights and contact is maintained throughout the string of fire.

NPOA, Open Legged; how to find it, how to place it on the target:

^***Emphasize** “relaxed position”, no muscle input.

***Demonstrate** how, using the first 3 steps of the six steps to firing the shot, the NPOA is determined.

The NPOA drill is: (First 3 steps of firing the shot!) Sight alignment, sight picture, close the eyes, inhale, exhale, relax, allow things to settle. Upon opening the eyes, the NPOA is where the sights are. Just shift the body to get it to coincide with the target.

(Shift both the bottom and/ or BOTH feet clockwise or counter clockwise to achieve proper windage, for elevation raise or lower the knees by sliding feet closer or further away, or slide the elbow up or down on the forward knee, or slide hand fore and aft along the forestock. In some instances, more than one may be needed to gain proper elevation)

***Demonstrate** “Carding the sights” as with the other positions.

Kneeling position:

Sling use, kneeling:

***Demonstrate** how to use the hasty sling, kneeling. (TPI)

***Demonstrate** how to use the loop sling kneeling. (TPI)

***Explain** that a slight sling adjustment may be needed from the previous sling position.

Addressing the target:

***Explain** and demonstrate how to index to the target. Stand facing about 90 degrees to the trigger hand side of the target.

How to get into a kneeling position:

***Explain** and demonstrate how the kneeling position is built. Drop to the trigger side knee with the forward shin near vertical. Place the forward arm on the target side of the knee, flat on flat. Sit with the weight rearward, foot either on the ball of the foot or tucked toe inside. The bottom rests on the heel or side of the foot.

Shooter Geometry:

***Explain** shooter variables, such as sitting on the foot vs. sitting on the heel.

***Demonstrate** how to raise and lower sights by sliding the arm up or down the knee or slide the hand along the forestock.

***Explain** that this should be a relaxed position, the shooters should not be holding anything with muscle input.

The instructor will have to suggest changes until the shooter arrives at a good kneeling position, taking into account their build, rifle, and flexibility.

Steady hold factors of the kneeling position:

*Support hand:

The forward hand should be open, relaxed. (Lying along the “lifeline” of the palm, resting on the heel)

*Support elbow:

The forward elbow should be on the target side of the knee, as far under the rifle as possible. (The “flat” of the back of the arm should rest on the “flat” of the knee for maximum surface area contact)

*Sling position:

The sling should be under the back of the hand and should be above the bicep. It should be snug and properly adjusted. (More tension will raise the shooter's forward arm and front sight, less will lower them. Too much tension on a hasty sling will not allow the rifle to be brought up high enough. Too loose and the shooter cannot relax into the sling)

*Forward shin:

The forward shin should be near vertical, foot flat.

(CHECK FOR CANTING)

*Trigger side knee:

The trigger side knee should be planted firmly, with the base of the spine resting on the heel or with the foot turned inside, sitting on the foot itself.

*Trigger side elbow: (Introducing a new concept)

The trigger side elbow should be “**chicken winged**” to form a larger pocket as much as possible. (Pistol grip stocks may require a lower elbow to prevent dragging wood)

*Trigger hand grip:

The trigger hand should grip the stock with a firm “handshake” grip, pulling it back into the shoulder pocket firmly.

*Trigger finger:

The trigger finger is not dragging wood. (Contact on the trigger being low and in the middle of the finger's first pad)

*Turkey neck:

The head is pushed forward to its full extent, creating a consistent point of reference and sight picture.

*Cheek weld:

The cheek is placed firmly against the buttstock after “turkey necking” with the eye perfectly aligned with the sights and contact is maintained throughout the string of fire.

NPOA, kneeling; how to find it, how to place it on the target:

***Emphasize** “relaxed position”, no muscle input.

***Demonstrate** how, using the 6 steps to firing the shot, the NPOA is determined: Sight alignment, sight picture, close the eyes, inhale, exhale, relax, allow things to settle. Upon opening the eyes, the NPOA is where the sights are. Just shift the body to get it to coincide with the target.

(Anchor the forward foot, shift the base clockwise and counterclockwise to get windage, for elevation, slide the elbow up or down on the forward knee or slide the forward hand fore and aft along the forestock)

***Demonstrate** “Carding the sights” as with the previous positions.

Words to use: Avoid using the word “comfortable” since most of these positions will not be comfortable, at least at first, and shooters tend to think they are doing something wrong if it is not comfortable. Suggest using “Steadier than before”.

Standing position:

Sling use, standing:

The Hasty- Hasty sling: (A new concept)

A great field sling for quick shots: With sling adjusted for carry, and rifle at “port arms”, make a circular motion with the rifle so that the sling rotates around the elbow and contacts the arm between the armpit and elbow. Rotate the rifle into position and push the forward elbow out to gain tension on the sling.

The Hasty sling: (TPI)

While standing, (For best observation), hold the rifle with the trigger hand, raise it vertically until the hand is about eye height. Reach through the lower part of the sling as if trying to reach a distant object. With the sling lying flat against the back of the shoulder, hold tension by pulling the rifle away from the shoulder. Reach under the sling, sweeping in a circular motion, placing the hand between the forestock and the sling. Rotate the rifle into the shooting position. Keep the sling as high on the arm as possible, adjust to maintain the proper “snug” tension and geometry.

***Explain** the advantages and disadvantages of the hasty sling.

The Loop sling: (TPI)

While kneeling, (For safety and best observation), place the rifle butt on the ground and the barrel against the shoulder pocket with both hands in front of the rifle. Disconnect the lower sling clip and pull the loop from the buckle. Holding the sling flay, as it would lie naturally, twist the sling one half turn to the right for right handers, and slide the loop up above the bicep. Adjust for the proper tension in position.

***Explain** why the loop must be above the bicep. Point out that the clip is on the outside.

***Explain** the advantages and disadvantages of the loop sling.

Addressing the target:

***Explain** and demonstrate how to stand at an angle to the target, toward their trigger hand side. Suggest starting with a 90 degree angle.

Shooter geometry:

Each shooter has a different shape and size, (geometry). Since the rifle is a fixed size, they will have to vary their body geometry to work with the rifle. Longer arms can hold the forestock further out or even lock the elbow against the ribs. Longer arms allow a more “closed” stance while shorter shooters will have to face nearly 90 degrees from the target to place the rifle across their body, thereby effectively shortening it.

How to get into standing position:

***Explain/ demonstrate:** Standing while facing about 90 degrees to the strong side of the target, place the feet about shoulder width apart. Sling up and mount the rifle, placing the butt higher in the pocket than other positions. This will raise the butt to the cheek allowing for a nearly normal, vertical head position.

***Note** how breathing has the opposite effect on the sight picture as prone and sitting.

Steady Hold Factors of the Standing position: (Demonstration)

***Support hand-** The forward hand should be open, relaxed. (Lying along the “lifeline” of the palm, resting on the heel)

***Support elbow-** The forward elbow should be as far under the rifle as possible. (Some rifles will have long magazines preventing the elbow from being directly underneath the rifle. In this case, the forearm should just touch the side of the magazine enough to “index” there, without canting the rifle or interfering with the shot) (Discourage “small bore” stances with elbow in the ribs)

***Sling position/ tension-** The sling should be under the back of the hand and should be above the bicep. It should be snug and properly adjusted. (The Hasty sling should transfer a good portion of the weight of the rifle to the chest) Too much tension on a hasty sling will not allow the butt to be brought up high enough to meet the cheek with eyes level. Too loose and the shooter cannot relax into the sling. Look for shooters who tension the sling by holding the elbow out from underneath the rifle, as they need to tighten the sling a bit)

***Legs-** The legs should be straight, knees not locked, feet a normal distance apart. (Start with them about shoulder width apart)

(CHECK FOR CANTING)

***Trigger side elbow-** The trigger side elbow should be “chicken winged” to form a larger pocket for the butt. (Pistol grip stocks may not allow for a very high chicken wing without dragging wood)

***Trigger hand grip-** The trigger hand grips the stock with a firm, “handshake” grip, pulling the butt into the shoulder pocket firmly.

The butt should be high in the pocket, enough to allow the head to remain nearly straight up and the butt to make a normal cheek weld without tilting the head over to meet the stock. Eyes should be as nearly level as possible.

Point out that this is the only difference between the steady hold factors for the different positions.

*Trigger finger- The trigger finger is not dragging wood. (Contact on the trigger being low and in the middle of the finger's first pad)

*Turkey neck- The head is pushed forward to its full extent, creating a consistent point of reference and sight picture.

*Cheek weld- The cheek is placed firmly against the buttstock after "turkey necking" with the eye perfectly aligned with the sights and contact is maintained throughout the string of fire.

NPOA, standing; how to find it, how to place it on the target:

***Explain** what NPOA is. Emphasize "relaxed position", no muscle input.

***Demonstrate** how, using the first 3 steps of the six steps to firing the shot, the NPOA is determined: Sight alignment, sight picture, close the eyes, inhale, exhale, relax, allow things to settle. Upon opening the eyes, the NPOA is where the sights are. Just shift the body to get it to coincide with the target.

(Front foot is the anchor, shift rear foot laterally for windage adjustments, shift rear foot closer to front foot to lower sights, away from front foot to raise them)

***Demonstrate** "Carding the sights" as with the previous positions.

***Explain/ demonstrate** how to keep NPOA when standing, Just don't move the feet. Place the prepped magazine in the pocket.

At the completion of the positions segment, each IIT will be able to explain and demonstrate:

- * Proper sling use for each position
- * How to get into each position
- * Steady Hold Factors for each position
- * Acquiring and shifting the NPOA for each position
- * Carding the sights
- * Total Participant Involvement



Teaching the Six Steps to Firing the Shot: (The “Integrated Act of Shooting”)

(Equipment required: Sight alignment/ picture visual aids, laser bore sighter, plunger action ball point pen)

1. Sight alignment:
 - ***Demonstrate**, using visual aids, how the sights are aligned, with the eye in the center, independently of the target.
 - * **Note** the subtle differences in the types, using aperture and open sights visual aids.
 - ***Note** the need to get the proper eye relief and eye alignment for scopes.

2. Sight Picture
 - ***Demonstrate**, using visual aids how the aligned sights are now brought onto the target for the proper sight picture.
 - ***Demonstrate**, using **aperture, open sights, and scope** the differences between the 6 o’clock and COT sight pictures.
 - ***Explain** the advantages and disadvantages of each.

3. Respiratory Pause:
 - ***Demonstrate** how breathing affects the sight picture, how elbow position helps maintain sight picture, and **discuss** holding duration and the breathing/ relaxation cycle. (Laser bore sighter demonstration: dot rises and falls vertically)
 - ***Explain** holding mid breath vs. lungs empty hold and the advantages/ disadvantages of each.

- 4a. Focus your EYE on the front sight: (The physical requirement)
 - ***Explain** the eyes inability to focus at more than one plane, and the need to focus on the front sight while keeping the rear sight and target blurred in the periphery.
 - ***Explain** eye strain/ retinal burn and how to relieve them.

- 4b. Focus your MIND on keeping the front sight on the target: (The mental requirement)
 - ***Explain** the need for concentration, (The “Rifleman’s Bubble”), and the ability to focus the mind on keeping the front sight exactly where it should be in relation to the target.

5. Squeeze the trigger:
 - ***Explain** the difference between squeezing and snatching the trigger. (Ball point pen demo, control, being able to stop at any time) A proper trigger squeeze should take about 2 seconds from the time the slack is taken up.
 - ***Explain** the proper contact with the trigger, middle of the first pad, low on the trigger, finger curled. Firm, “handshake” grip of the stock
 - . Trigger pressed straight to the rear.

6. Follow through:

Hold the trigger back:

***Explain** the need to hold the trigger back after the shot so as not to disturb the rifle while the bullet is still in the bore.

***Reinforce** the need to practice this during dry fire to develop the habit.

Teach to ride out the recoil, and when sights are aligned on the target again, to release to “trigger reset”.

Take a “mental snapshot” of where the front sight was when the round went off:

***Explain** why the shooter needs to “Call the shot”. A Rifleman never wastes a shot, and a called shot is never a wasted shot.

***Reinforce** the need to practice this during dry fire to develop the skill of calling the shot.

Words to use: “Sight alignment has nothing to do with the target”, “Bring the aligned sights onto the target”, “Relax”, “Don’t waste your prep period! Dry fire!” “Reset the trigger” (Don’t use the word “sear”)

After completion of this module, each IIT will be asked to **explain the steps in detail, as if they were teaching someone new to shooting.** Particular attention should be given to **using the proper phraseology** as well as keeping things **simple and precise** without a tendency to “over teach”. When the instructor is confident in the abilities of each of the IITs to teach the six steps, he should move on to the next module, beginning with the day 2 demonstrations.

If time allows and the Day One POI is finished you should begin the Day Two program and go as far as time allows.

Day Two:

Chorus Line: (Repeat and quiz throughout the day)

The four safety rules
Safe rifle means....
The six steps to firing the shot
The line commands

History:

More brief history presentations will be made during the day by both instructors and IIT's. Critiques will be made and all should learn more about the history presentation and how it should be done. It should be presented with the respect it is due.

IIT preparation for the Appleseed:

(Equipment needed: Visual aids, Laser bore sighter, Rifles, Magazines, "Redcoat target, AQT target)

The remainder of the day will be run much like day one at an Appleseed event. IITs will get hands on experience in many line positions gaining knowledge and skills for the following day. Among the areas to be covered are:

Discuss Malfunctions and how to handle them:

Failure to feed
Double feed
Fail to eject
Fail to fire
Hang fire
Squibb load

"Inches, Minutes, Clicks"

The Instructors should demonstrate a complete, concise IMC presentation and allow the attendees to take notes and to present one on their own. (See "Inches/ Minutes/ Clicks" in the Appendix for examples and notes)

"Rifleman's Cadence"

The Instructors should demonstrate a complete, concise presentation of "Rifleman's Cadence", allowing attendees to take notes. If time allows, allow a couple to do a demonstration. (See "Rifleman's Cadence" in the Appendix for example and notes)

TROUBLESHOOTING ON THE LINE:

In order to successfully detect and correct shooter errors at an Appleseed event it is necessary to have an orderly plan of action that can be implemented each time for every case. Below is a guide to use when troubleshooting errors on the line. It by no means contains all possible problems or fixes you may find on the trail, but will go a long way towards helping develop the skills and confidence required to aggressively engage shooters at an Appleseed event and help the shooters progress rapidly.

Almost all problems are caused by the lack of, or improper application of, the fundamentals.

Divide this plan into 3 main areas of concern: **Position, 6 steps, and Mechanical.**

THE POSITION: Since establishing and maintaining the proper position is the basic building block of shooting, it is important to rule out position error as a cause for problems first. If the shooter cannot establish and maintain a proper position all other aspects of placing rounds on target will be difficult if not impossible.

Begin by observing the shooter in the position. Check off each **Steady Hold Factor** in order. Use this as a checklist to critique the position. Other than the standing position, all positions have the same steady hold factors. (Standing position adds raising the buttstock to meet the cheek and not leaning the head over to meet the stock)

Steady Hold Factors include: Proper **shooter angle** reference to the target, **forward hand** open and cradling the rifle, **forward elbow** under the rifle, **sling** passes under the back of the hand and above the bicep, **weak side leg** straight with the spine, (prone), **trigger side knee** pulled up high, (prone), **trigger side elbow** planted, (Both elbows on the forward side of the knees if sitting)(chicken winged for standing), **trigger hand** grips the stock and pulls back firmly into the shoulder pocket, **trigger finger** properly placed on the trigger, **turkey neck**, and then **cheek weld**. (If you don't know your SHF's COLD, then work hard to memorize them!)

Correct any problems with the position that you may find.

Example: A shooter displays constant diagonal stringing.

Begin by asking yourself which improper SHF would cause the problem displayed.

Would not having the hand open, rifle resting on the palm cause this? Doubtful.

How about elbow not under the rifle? Absolutely! Check and correct this.

How about improper sling use? Maybe, but not likely. Make sure it's correct though.

Legs? No
Trigger side elbow? No
Trigger side hand or finger? No
Turkey neck and cheek weld? No

Continue with the SHF's , applying this logic until you have one or more possible solutions to offer. Explain them to the shooter, watch that he actually does them, and move on.

THE SIX STEPS: Next we will reference either FIRING LINE ERRORS, or TARGET LINE ERRORS, and use the **6 steps of firing the shot** to diagnose problems. Once you are certain that the shooters position is correct, begin to diagnose other errors.

Based on what you see at the target line or what the specific complaint from the shooter, you should be able to quickly determine one or more possible causes and apply corrections.

Begin by asking yourself, (In the order in which they appear), which step of firing the shot would cause the problem you see.

Example: A shooter displays constant horizontal stringing.

Ask yourself if step 1 would cause this. Not likely.
How about step 2? Again, not likely.
3? No, that would likely show up as vertical stringing, right?
How about 4a and b? No, not likely.
5? Yes! Maybe he's snatching the trigger, squeezing it back at an angle, etc. So watch that trigger finger on the next shot.
What about 6? Another likely culprit too, so watch for follow through.

Another example: A shooter places a nice tight group in the square pretty regularly, but then his groups begin to open up, but they remain centered on the square. Hmmm.

Would step one do that? No, the group was still centered on the square.
How about 2? Not likely for the same reason.
3? No, for the same reason.
How about 4a? YES! Remind him to focus his EYE on the front sight again. Remember, it is a skill just like everything else they are trying to learn and must be reinforced.
Now...how about 4b? not likely, since the group remained centered.
5? Nah, same reason.
6? Nope, not likely.

Following a logical sequence like the 6 steps will lead you to one or more good causes for what ails them.

Of course you should always be on the lookout for the classic signs of **Flinch, Buck, Jerk, or Blink!** Large groups with no appreciable decrease in size as they go along could be a FBJob problem. Time to get down on your belly and go to work.

Multiple targets bring on even more problems involving **NPOA, Cadence**, etc. Discuss examples with the attendees.

But sometimes, everything looks good, and the shots suddenly fall where they aren't supposed to. What then? Now look for mechanical problems:

MECHANICAL PROBLEMS: After exhausting position or 6 steps as issues, you may want to start thinking about problems with the rifle itself. Applesseeds have a way of bringing out the problems caused by wear and tear, inattention to maintenance, etc. Obviously the first thing to check for sudden, erratic shots would be the sights. Look for loose front or rear sights, scope bases, etc. Also look for things that have come loose on the rifle itself. Anything that was supposed to be immobile and is now moving with each shot is bad news. Look the rifle over well and secure anything that should be.

Example: The shooter has been "on" all day, and then suddenly the shots go crazy vertically. Check the rear sight for looseness. Sudden horizontal excursions means you may need to check the front sight for looseness. (Proper ways to check these should be learned)

Another example: The shooter begins the string on target, but as the string progresses, the shots go lower and lower.

Forward hand? No

Elbow? No

Sling? Now you're talking! Is she using a hasty sling? Maybe it is a bit loose and is sliding down the arm with each shot.

Is she using a loop sling? Maybe it too moves down because she's wearing a slick shirt and it slides down or the loop is rigged "backwards".

Maybe the GI locking cam is loose enough to allow the sling to loosen with each shot?

The techniques described above can be applied either on the **firing line** or when diagnosing errors at the **target line**.

Conclusion: An instructor who has good knowledge of the **Steady Hold Factors** and **Six Steps** can rely on that knowledge to help in diagnosing shooter errors. Having a logical plan to diagnose errors will lead to one or more likely causes more quickly. A little practice can greatly improve your skills as an instructor.

Check POSITION (Steady Hold Factors)

Check SIX STEPS

Check MECHANICALS

One on One instruction, “Line Error Cards” (from the attached file)

After covering troubleshooting, give the IITs a chance to diagnose errors before sending them to the line using the “Line Error Cards”.

IITs should be able to diagnose errors and point out corrections to the shooters. Instructors will **role play**, demonstrating some of the problems that we’ve seen so the IIT’s will have the opportunity to troubleshoot these problems and gain experience doing so.

Using the Line Error Cards, **Assign** Instructors to **display specific position errors**, such as canting, dragging wood, snatching the trigger, not maintaining cheek weld throughout the string, poor position, and other various position errors. Introduce odd errors we have seen. Rotate each attendee through all of the errors, allowing them to find each.

Display specific target line errors, such as large groups, tight groups off center, diagonal, horizontal, and vertical stringing, single shots outside the group, etc, for IITs to diagnose at the line. (These may be drawn on a target)

Teaching at Known Distance: (Discussion)

The object of teaching at 25 yards is to quickly get the fundamentals of shooting instilled in the shooter so that he can apply those skills out at long distances. The culmination of 25 yard training is to actually apply what the shooter has learned at known distances.

Known distances eliminate the problems associated with target detection and ranging and allow the shooter to gain competence, confidence, and usable data for his rifle out to considerable distances.

When a range is available to teach KD, use it to let the shooters prove to themselves that everything they’ve learned at 25 yards is directly applicable to much further distances.

Learning at KD is as much self learning as it is being taught.

The instructors job is to guide the shooters through the course, reinforcing the fundamentals, and allowing self discovery and correlation for the shooters.

BEFORE HEADING TO THE RANGE: (Discussion)

Obtaining and recording base sight settings:

Use of recorded sight settings are the key to effective teaching at known distance. Before they leave the 25 yard range the shooters should record their “Base” sight setting.

Simply have them note where their sights are in reference to “Bottomed out” elevation and “centered” windage. This will be used as the basis of all changes made on the sights during the KD course of fire.

Emphasize the need to record this data!

ZEROING VARIOUS RIFLES:

Explain the basics for zeroing various rifles that we commonly see on the line. Use the actual rifles to explain if possible.

M1/ M14 type (Mechanically zero the front and rear windage/ bring the rear sight up 10 clicks, adjust windage and elevation 1 moa per click to zero)

AR15 type (Mechanically zero rear sight windage & place elevation @ “3”. Adjust front sight for elevation, rear sight for windage) (Refer to “Sight Settings for Various Rifles” chart to determine approximate change needed for specific rifle configuration)

AK/ SKS type (Set rear sight at “2”, front sight elev = approximately 8 moa per turn/ .006” per moa drift) (Adjustment tool moves approximately .035” per revolution)

Discuss drift adjusted sights: Approximately .006” per moa. (Can go from .008 for long sight radius to .004” for short ones)

Reference “Sight settings for various rifles” handout:

AR15 variants:

<u>Front sight posts:</u>	*	<u>Windage:</u>	*	<u>Elevation:</u>
A1 20” = 1 MOA	*	A1 20” = 1 MOA	*	A2 20” = 1 MOA
A1 16” = 1.5 MOA	*	A1 16” = 1.5 MOA	*	A2 16” = 1.5 MOA

A2&3 20” = 1.25 MOA	*	A2&3 20” = ½ MOA	*	A3 20” = ½ MOA
A2&3 16” = 1.875 moa	*	A2&3 16” = ¾ MOA	*	A3 16” = ¾ MOA

** If zeroed at 25m with small aperture, zero is for 300m, large aperture is 200m

SKS/ AK

Front Sight Elevation: 8 MOA per turn
Front Sight Windage: Approx 1 MOA per .006" (Drift tool is approx .035" per turn)
Rear Sight Elevation: Approx 3 MOA per detent out to 300m

SOCOM M1A

Rear sight elevation = 1.5 MOA? Rear sight windage = 1.5 MOA?

FAL

Front sight: ?
Rear Sight: ?

10/22 w/ Tech- Sights:

	(22" BBL)	(Carbine)
Front Sight Elevation:	? MOA per click	? MOA per click
Rear Sight Elevation:	.8 MOA per click	1 MOA per click
Rear Sight Windage:	.8 MOA per click	1 MOA per click

Ruger Mini 14

Windage= 1 MOA
Elevation= 1 MOA

HK 91

Windage & elevation = 1.25 MOA per turn of the drum

HK93

Windage & elevation = 1.6 MOA per turn of the drum

Steyr AUG

Windage & elevation = 1.5 MOA per click

Obtaining and recording data for known distances: (Discussion)

Once the shooters have their base settings, and a good knowledge of trajectory and come ups, it is a simple matter to have them shoot the KD course.

Reference the "Come ups" handout:

Range	M14 (std)	M1 Garand	M16*
100 > 200	3 moa	2 moa	2 moa
200 > 300	3 “	3 “	2 “
300 > 400	4 “	4 “	3 “
400 > 500	4 “	4 “	4 “
500 > 600	5 “	4 “	5 “
600 > 700	5 “	5 “	6 “
700 > 800	6 “	6 “	7 “
800 > 900	8 “	6 “	*
900 > 1000	8 “	7 “	*

*(M855 ammunition, 62 grain / 20 inch barrel)

*(If small peep = 300 yard zero, large peep = 200 yards)

*(25m = approx 300m, 50m = approx 200m zero)

COF will be driven by the range available. For instance, how many shooters can fit on the line? How many targets can fit on the line at a given range? How many .30 caliber shooters are on the line? .223 shooters? All of this determines how to most efficiently run the KD course. If enough targets are available and the shooters calibers work out appropriately, you might be able to have them fire at different ranges simultaneously.

For instance, you could have the .30 caliber shooters start off with 200 yards while the .223's shoot at 300 yards. This will allow them to use their “Base” settings to begin with and not make any sight setting changes. If this is not possible, perhaps the shooters can all shoot at 200, with the .223 shooters making adjustments according to the newly learned “come ups” or 300 yards and vice-versa. You may even have the more experienced shooter make sight adjustments so that the less experienced ones can use their base setting initially.

A little planning can go a long way to shorten the time it takes to complete the course of fire. This is mandatory since KD at an Appleseed is usually limited to half of day 2. Once the COF is determined, have the shooters fire at each of the available distances and record their come ups reference their base sight setting.

Have the shooters record their hits on one of the CAQT (green) targets taken to the target line for that purpose. Just mark each hit from the “real” target onto the appropriate CAQT (witness) target using “1s” to denote first group hits, “2s” for the next group, etc. This allows them to record hits for future reference.

Issue a clean CAQT for scoring the FDAQT.

Always “paste” ALL targets before returning to the firing line. If no pasters are available, use masking tape to cover the holes and a black marker to color them in the black areas.

Most shooters can obtain good data in 2 strings or less. Watch the time, anyone not on paper after 3 iterations likely has mechanical or positional problems that will preclude their obtaining good data from the course. Time constraints at an Appleseed typically allow for only sighting in at one specific range and all other ranges to be shot using come ups.

Now it's time to apply what they've learned:

Shooting the Full Distance AQT: (Discussion)

If possible, shoot the AQT as you gather data. For instance, when everyone has good data for 200 yards, have them shoot the 2nd stage of the AQT for score.

Do this just as if it were at 25 yards, start standing, drop to sitting and shoot 10 rounds in 50 seconds. The shooters normally recognize the ease of this as there is no second target on which to place a NPOA.

Continue through each stage as you gain data, 300 prone rapid, 400 prone slow, then 100 yards standing. Shoot them exactly as you would at 25 yards.

Have the shooters carry a fresh CAQT "witness" target to the target line to record their hits and scores.

Paste targets after each string.

Remember that the score needed to gain Rifleman status on the KD range is only 200.

Duties and Procedures for the Appleseed event:

Explain the duties and responsibilities of the various instructors at an Appleseed event in detail.

IIT's should be able to explain the duties of each position and where they will be on and off the line. Positions to include:

Duties:

Shoot Boss: The Shoot Boss is responsible for the logistics, planning, set up, safety, and running the event. The Shoot Boss is the final authority in all things at the event.

Line Boss: The line boss is in charge of the line. He is to remain in this capacity alone to increase situational awareness, so no instructing is allowed. The Line Boss has the "Big Picture" on the firing line and is responsible for its safety and also for keeping the line running on schedule.

Instructor: The instructor is the “Point of the Spear” of the Appleseed Project. He is in direct contact with the shooters and will remain engaged with them constantly, correcting errors, advising them of tips and techniques to improve their shooting abilities. As with everyone else on the line, he is to maintain a constant vigilance for safety violations. An Instructor may also perform the duties of a Range Safety Officer, (RSO), or Line Safety Officer, (LSO), at specific times during the Program of Instruction.

Range Safety Officer: The RSO is a direct safety link between the Line Boss and the line itself. There are typically two RSO’s, one for each side of the line. While performing the duties of RSO he must not allow himself to be distracted from this duty and must execute them precisely as directed. When not performing the duties of a RSO he must mentally “flip the switch” and resume the duties of an Instructor.

Line Safety Officer: At times, the line may be too long for practical use of RSO’s alone. Under these circumstances, to expedite clearing the line, LSO’s may be designated. There can be as many LSO’s used as deemed necessary by the Line Boss. The LSO operates on the line between the Line Boss and the RSO and performs nearly the same duties as the RSO when clearing the line. When not performing the duties of a LSO he must mentally “flip the switch” and resume the duties of an Instructor.

PROCEDURES:

Line Boss: The line boss alone issues the line commands. He will use the standardized line commands, verbatim. At times when the line is too long to ensure everyone on the line can hear them, the instructors may be asked to “echo” the line commands.

In this instance they will echo the commands “LOAD!”, “FIRE!”, and “CEASE FIRE!” only, verbatim and no more.

The only command “owned” by everyone on the line is the “Cease Fire!” command, which is to be used in case of a safety problem where the line must be shut down immediately.

The Line Boss will designate who fills the RSO and LSO positions and ensure that they know their duties and communications procedures. He will designate “overlap” rifles.

The Line boss will time the Preparation Period, Course of Fire, and time spent at the target line in order to keep the pace of the shoot moving and to keep wasted time to a minimum.

The Line Boss will adhere to the Shoot Boss’s COF and run the line according to its schedule.

Instructor: The instructor has a multifaceted job and must perform them all to the best of his abilities. His primary duty is that of line instructor. In this capacity he is expected to remain in constant contact with the shooters, looking for errors and correcting them, all the while watching for any safety violations.

He should start at one end of his designated portion of the line and engage a shooter, looking over his position and correction any problems with position, steady hold factors, improving his technique, admonishing him to shift NPOA for each target, maintain cheek weld, etc, and when satisfied he should move to the next shooter and repeat the process.

At no time should an instructor be seen chatting with a shooter or instructor when he could be instructing. In short: ENGAGE the shooters, constantly. This process begins when the instructor steps onto the line.

The instructor should be where the shooters are, i.e., if the shooters are at the target line, so should the instructor be, diagnosing, teaching, engaging the shooters. If they are on the firing line, in their preparation period, that's where the instructor should be, shouting out line patter, pointing out helpful tips, correcting positions, etc.

Instructors should engage and try to accomplish as much as possible before the "Fire!" command, so as not to interrupt the shooters unnecessarily during live fire, especially during the 2nd and 3rd stages of the AQT, when time is a factor. During live fire, instructors will look over the shooters for problems that can be pointed out easily and corrected, such as touching a trigger finger for dragging wood.

When a shooter indicates that he is not ready to fire, the instructor nearest to that shooter should engage him to ascertain the problem.

If the problem is not a safety issue he will face the Line Boss and give the "thumbs up" sign, allowing the Line boss to proceed at his discretion.

If the problem is a safety issue, the instructor should ensure the muzzle remains in a safe direction, give a "thumbs down" signal, and shout "Safety Issue!" advising the Line Boss of the fact and await his command.

(A command to "Stand Easy!" from the Line Boss will keep the line in place until the problem can be resolved)

The instructor should work with the shooter to resolve the problem.
Once resolved, He should face the Line boss and give the "thumbs up" sign again.

The Line Boss should begin with the line call "Is the line ready?" and proceed again.

Handling a “negligent” discharge on the line

As an Instructor on the line you will occasionally find that someone fires their rifle when they shouldn't. Below is an outline for the proper actions to take in such a case:

Scenario #1: You are working the left side of the line as an Instructor. The last line command you heard was “Is the line ready?..... Ready on the left?” Suddenly, a shot rings out near you. You, (And everyone else, for that matter), should immediately give the “CEASE FIRE!” command.

Next you should determine who shot. Simply ask, (If you don't know), who fired that shot. Most likely you will see a hand, sheepishly raised, by an embarrassed shooter.

The closest and ONLY the closest instructor to that shooter should now engage him and determine one of two things: Did the shooter INTEND to fire that shot or NOT. (All other Instructors should refrain from “rubber necking” and watch their section of the line for safety violations)

Simply ask if they intended to fire the shot. Sometimes you must make it very simple and ask “Did you squeeze the trigger and make the rifle go off?”

The answer is yes. (Say, they tell you “I just got a little excited”) There is no harm, no foul, as no safety rules were broken and no safety issues remain. You should then follow standard line procedure and ensure the muzzle remains in a safe direction, turn to the Line Boss giving him a “thumbs up” signal, and await his next command.

Scenario #2: You are working the left side of the line as an Instructor. The last line command you heard was “Is the line ready?..... Ready on the left?” Suddenly, a shot rings out near you. Again, you should immediately give the “CEASE FIRE!” command

Again, determine who fired the shot and the closest Instructor to that shooter will engage and find out if the shooter meant to fire the shot or not.

The answer is no. (Say, they tell you “I just took the safety off and it went bang!”) Now you have a SAFETY issue, (An unsafe rifle), and you should respond according to the standard line procedure by ensuring the muzzle remains in a safe direction, turning to the Line Boss and showing him a “thumbs down” signal while shouting “SAFETY ISSUE!”, and awaiting his next command. (He will likely have the line “Stand easy!” and ask you what the problem is)

You should communicate clearly with the Line Boss the nature of the problem. He may ask that you remove the rifle from the line. After the line becomes safe again you should stand facing the Line Boss with the “Thumbs up” signal displayed.

Scenario #3: You are working the left side of the line as an Instructor. The line is in "prep period" and the shooters are prone and dry firing. Suddenly a shot rings out near you.

Again, you should give the "CEASE FIRE!" command, the nearest instructor to the shooter should be the only one to engage. In this case, there most definitely is a safety issue, since no rifle should have been loaded.

Find the shooter, make sure the muzzle remains in a safe direction, turn to the Line Boss and shout "SAFETY ISSUE!" while displaying the "thumbs down" signal and await his next command. (He will likely have the line "Stand Easy" and ask you what the problem is)

You should communicate clearly with the Line Boss the nature of the problem.

Now you need to determine what happened because there may be several things in play here. Find out why there was a round in the chamber. It could have been that the shooter simply loaded the rifle, (Not a safety problem), or it could be that the last round wasn't ejected from the previous string of fire, (Safety problem).

If they loaded the rifle you have your answer and it is a good idea to see if anyone else mistakenly loaded. After the line becomes safe again you should stand facing the Line Boss with the "Thumbs up" signal displayed.

If they did not load the rifle you may have some real problems.

First, consider the rifle unsafe, (There may be an extractor problem), and communicate this to the Line Boss. He may then ask you to remove the rifle from the line.

Next, why wasn't this caught when the line was cleared? The chamber flag SHOULD have been inserted into the chamber, right?

Take care of ALL the problems. In other words, consider the rifle unsafe and remove it from the line, (extractor problem), address the lack of having the chamber flag in the chamber with the shooter(s) then address why this was not caught during line clearing with the Instructor(s).

In all cases on the line, communicate, keep it professional, and keep it SAFE!

Range Safety Officer: At the command "Unload and clear!" the instructor so designated will now perform the duties of the RSO. The primary duty of the RSO is to clear the line after cease fire and communicate with the Line Boss its condition. The RSO communicates with and reports directly to the Line Boss.

All lines will be cleared from the center to the ends. The RSO will begin at the designated “overlap” rifle in the middle, and will clear that rifle. He will then walk the line from that rifle to the last rifle on his side, clearing each one.

When he reaches the end of the line he will turn to face the Line Boss and **watch the line** to ensure that it remains clear and safe.

When the Line Boss asks if the line is clear on his side he will display a “thumbs up” in clear view for the line boss to see, (if the line remains clear).

At the call: “The line is clear! The line is clear!” the RSO will mentally “flip the switch” and return to the capacity of Instructor and fulfill the duties at hand.

Recapping: The Instructor’s RSO duties begin with the command “Unload and clear!” and end with the command “The line is clear! The line is clear!”

Line Safety Officer: When given the line command: “Unload and clear!” an instructor designated as LSO must mentally “flip the switch” and take up the duties required. The LSO communicates with and reports directly to the RSO.

LSO’s will clear a section of the line between the center and the next section, which will be covered by another LSO, if the line is long enough, but more typically by the RSO.

He will begin toward the center at his “overlap” rifle and clear toward the end to his “overlap” rifle, clearing each rifle. When he reaches the outside end of his section and clears that rifle he will face the end of the line and give a “thumbs up” sign to the RSO at the end of that line.

At the call: “The line is clear! The line is clear!” the LSO will mentally “flip the switch” and return to the capacity of Instructor and fulfill the duties at hand.

Recapping: The Instructors LSO duties begin with the command “Unload and clear!” and end with the command “The line is clear! The line is clear!”

OTHER DUTIES:

Admin table: The admin table will ensure that all shooters are paid up, registered, and have signed a liability release.

They will also ensure that those who paid for both days will get their Appleseed T-shirts.

Meet & Greet: Greeters will typically meet the shooters as they arrive, giving them the initial briefing and information including where to park, where to register, to keep all rifles in their vehicles until after the safety briefing, and that there are no pistols allowed on the firing line.

Safety/ Range Commands briefing: This briefing to be delivered at the beginning of the event. A complete, concise coverage of all safety rules and range commands is to be given.

History lesson: This monologue is given at the beginning of the event, but may include portions given throughout the day also. The story of the events of 19 April, 1775 should be told in a concise, interesting manner linking those events to us in the present.

Parking lot patrol: When the shooters return to their vehicles to retrieve their rifles, these Instructors will monitor the parking lot for safety during the walk back to the firing line. They should strive to keep the shooters moving and not wasting time. (“Quickly, quickly!”)

Firing line patrol: These will likewise monitor the firing line for shooters returning from the parking lot to ensure safety during their set up on the line.

Emergency Action Plan: A medical emergency plan will be explained to the IITs, complete with duties and responsibilities using the plan and personnel currently in effect.

(Admin: Ascertain if 911 service is available via land line or cell phone, if there is a designated site for airlift, Lat/ Long coordinates for rescue personnel, Range address, Range medical kit available.

Communications: If cell phone use is inadequate assign one person to leave the site to get medical help on the way. If there are two ranges, radio contact must be arranged and maintained and have a backup plan in case of radio failure.

Assignments: The Shoot Boss will designate people to handle radio communications on the range, leave to gain cell phone communications, who will stand posted to direct emergency personnel onto the property.

Procedures: Ask for those with medical training to identify themselves during the morning brief. In the event of an emergency, ALL lines will be shut down, the respective line bosses will secure all rifles.

The Line Boss where the incident has occurred will ask for professional medical personnel and begin to render aid according to the circumstances.

The respective designated people will leave to get medical help on the way, stand at a post where they can direct medical personnel into the range and maintain order among the shooters.

When medical help arrives, the Line Boss will be the point man for communications with them.

After the incident is over, the Shoot Boss will gather information from witnesses, advise RWVA personnel not to make any statements to anyone concerning the incident, and write a report detailing the event for future reference.

Other Emergency Action Plans to consider may include: A wildfire burning uncontrollably nearby, including egress plans, Illness of a shooter, etc.

Calling the line:

IIT's will get a chance to be the Line Boss, gaining experience doing so. This will give instructors an opportunity to evaluate their performance and point out strengths and weaknesses.

*Attention to running the COF efficiently and keeping things moving will be stressed.

*Attention to safety and communication with the RSO's will be stressed.

*Voices will not be stressed. Teach the Line Boss how to elevate the voice without hurting himself.

Safety on the line/ Line clearing procedures:

All IIT's will be evaluated on **situational awareness, attention to detail and safety. Adherence to standard procedures, attention to duties without being distracted, and working their position safely and correctly will be paramount.** They will demonstrate knowledge and vigilance during their duties when clearing the line and monitoring shooters for safety problems.

"1430 Syndrome":

Discuss how both shooters and instructors tend to suffer a drop in attention around mid afternoon which requires greater vigilance on the part of the instructors. (Instructors will not engage and tend to observe and "patter")

Demonstrating and explaining:

Help the Instructors not to "over teach" or fill in momentary silence with "chatter".

TPI: (Total Participant Involvement)

Draw the shooters into the instruction, asking questions, having them talk you through slinging up, finding and shifting NPOA, IMC, etc. This is very important!

Patter:

Encourage the IITs to use patter on the line: Marksmanship patter, Rifleman patter, and Tradition patter during their line instruction. Give examples of each.

(Do not confuse patter with engaging and instructing the shooters!)

The “Mock Appleseed Firing Line”

Points to consider during the day:

* **Shooters have a tendency to “let down”** as if the Boot Camp is over. (“Last day of school syndrome”)
Remind them that today is probably the hardest day of the event, they are being evaluated, so they should remain focused.

* **Keep distractions to a minimum.** Anyone not associated with the actual training should not be on the line.

* **Have a diverse collection of rifles** likely to be seen on the line and ensure the IITs can load, unload, and safe them.
Leave unattended rifles on the line and occasionally make them “unsafe” for RSOs to find and correct.

***Help the IITs to learn how not to “over teach”** or fill in pauses with rambling or “noise”
(Momentary silence is not bad)

*Have Instructors as well as BC shooters act as Appleseed shooters to introduce common errors for IITs to correct.

Distribute copies of the Appleseed Day one POI/ COF to the IITs
IITs will run the line, coach the shooters as if it were Saturday morning
Rotate IITs through the duties. This will give the instructors an opportunity to gauge the IIT’s capacity for each position, determining strengths and weaknesses.

Explaining all aspects of the Appleseed event:

At any time during the day, each IIT should be able to explain or demonstrate any skill set needed to meet the present situation to the satisfaction of the instructors. They will be called upon to do just that as the day progresses and will be evaluated on their performance.

=====

Begin the “Mock Appleseed”

(Equipment needed: Visual aids, POI, Laser bore sighter, Rulers, Tape Measures, Rifles, Magazines, “Redcoat target, AQT target)

The remainder of the day will be run much like day one at an Appleseed event. IITs will get hands on experience in many line positions gaining knowledge and skills for the following day.

Allow time for the final exam and debriefing, (Approx 1.5 hours)

Final exam:

Oral exam (Open book) for the group to include all the covered subjects
Demonstration of knowledge and skills in presentation of each module of learning will be required of each IIT.

=====End of IBC=====

Designation of duties for the IIT's for the Appleseed event to follow (If applicable):

After official close of the RBC, each IIT will be assigned duties for the next day's event and asked to explain what the duties entail.
They will expect to rotate into other duties as the day progresses.
Evaluations by the instructors will continue throughout the entire event.

Closing ceremonies: TBD

After Action debriefing:

The Shoot Boss should hold a brief After Action meeting to debrief the IITs on their performance during the IBC as it may pertain to the upcoming Appleseed.

Indoctrination: At this time he should also present an "indoctrination" for the new IITs to explain what is expected from them as far as commitment, frequency of working the events, professionalism, line and forum etiquette, working with different SBs, etc.

Shoot Boss After Action Duties:

Instructor Evaluation Forms:

The Shoot Boss(s) will complete an IEF detailing performance at the IBC and the Appleseed for each IIT and send it to each attendee.

NOTE: If the IBC SB cannot be present at the Appleseed following the IBC the IEFs must be "split" with the Appleseed SB so that the IIT will have reference to both. The IITs level will be assigned based on these two by the Appleseed SB. (Target is IIT3)

Detailed AA Duties, IEFs and assignment of IIT levels:

1. The IBC SB will fill out an IEF for each attendee detailing their performance during the IBC.
- 2a. If the IBC SB is also the Appleseed SB he will add to the IEF detailing performance of the IIT at the Appleseed and then determine the level of each IIT.
- 2b. If the IBC SB is NOT also the Appleseed SB he will fill out an IEF for each IIT detailing their performance during the IBC and have the IIT forward that IEF to the Appleseed SB for review prior to the event.

The Appleseed SB will then “split” the IEF with the IBC SB by adding to the IBC IEF detailing the IITs performance during the Appleseed and forward the IEF to the IIT.

The Appleseed SB will then determine the appropriate level for each IIT based upon the written requirements of the level, the IBC and Appleseed IEFs, and their abilities as demonstrated during the Appleseed.

3. The Appleseed SB will send a PM to the proper persons to validate and post the level of each IIT.

BE SURE TO INCLUDE THE IIT IN THE “TO” LINE OF THE PM!

After Action Reports:

AARs will be posted under “Boot Camp AARs” and “Internal AARs”.

Upgrades:

The Appleseed Shoot Boss will report via PM to the proper persons the upgrade of any IIT or Instructor to a higher level during the event.

Range Data Sheet:

The Range Boss will complete a Range Data Sheet and post it for future reference.

Expenses:

The SB will submit expenses for reimbursement on the Shoot Boss Reimbursement form.

**APPENDIX:
3-09**

Teaching tips and techniques: IITs should be familiarized with the following:

IIT's should demonstrate proper tips and techniques for teaching various skill sets during an Appleseed event. These should include:

Ambidextrous training:

Have the IIT's "shoot" each position from their weak side to allow their "coach" to observe the position, since it will be awkward for the shooter to do so using their weak side limbs and they will display the mistakes of a new shooter.

Ball & Dummy: Explaining and teaching

Ball and Dummy accomplishes **TWO** things: First, it **DETECTS** problems, and second, it **CURES** them. The shooters should be paired up and given about 15 to 20 minutes each to fire 5 live rounds and as many dummies as needed. This is also a very important drill for the "coaches", as they will be looking for flinches, bucks, jerks, blinks, etc, as well as positional errors. Coaches will shoot better because they will look for the same errors in themselves.

Instructors will cover the definitions and effects on target for flinching, bucking, jerking, etc, so that the IIT's have a good understanding of each:

Flinching is usually a reaction to the rifle going off. It might be in reaction to the noise, or it could be that the shooter isn't holding the rifle correctly, has taken a few hard knocks and now has begun to flinch just before the round goes off, tensing up or jerking the shoulder back to avoid the recoil. (Results in shots high and right in Right handed shooters)

Bucking is typically a thrusting the shoulder into the rifle just before it goes off in anticipation of the recoil. Again, if you are holding the rifle correctly, recoil is not a factor, so you may have two problems to solve. (Results in shots low and left in Right handed shooters)

Jerking is jerking the trigger, just as the sights come onto the target and before they can drift off again. Of course this will throw the shot. (Typically horizontal spread on target)

Blinking could be caused from the concussion of rifles going off around you or your own rifles noise or recoil. If your eyes are closed when the shot is made I can promise you it won't be a good shot, and besides, how can you call the shot with your eyes closed? Typically also has a flinch, buck, jerk associated with it.

Remind shooters to know how to feed the rifle, (It should be fed the way it normally is, using the same magazine or clip, do not allow single feeding of semi-autos because of the danger of slam fire), and to know where the brass is ejected so they won't have their face there.

Use one empty or dummy magazine and one live round magazine. Prep only one round in each magazine, no matter what.

Have the shooter simply close his eyes and present the rifle to the coach in a manner allowing it to be loaded. He need not break his position.

Begin with a dummy or two, getting in close to check the shooters position, eyes for blinking, muzzle for flinches, bucks, jerks, etc.

Feed him dummies until the problem goes away, then a live round. Repeat as necessary to cure the problem.

Base Sight Settings, Obtaining/ Recording:

Once the shooters have zeroed their rifles and are shooting tight groups, and before moving on to the KD range, they should write down their base, (25m), sight setting referenced to bottomed out elevation and mechanical windage zero. Once recorded, it is simple to zero for any range reference to the base setting and recorded come ups. Explain the base settings of .30 vs. .223. Explain what data should be recorded in their data books.

“Carding the sights”:

Teaching NPOA is a difficult task because we cannot see or feel what the shooter does. We must rely on him to relay that information to us verbally which is difficult with a new shooter. However, carding the sights can help the shooter who doesn't quite understand what he should be looking for.

With the shooter in a proper position, place the “card” in front of, (target side of), the front sight, forcing him to do the first step correctly. When he has perfect sight alignment, have him inhale, exhale, and relax, wiggle the rifle around a bit, allowing things to settle. Remove the card and ask him where the sights are in reference to the target, explaining that “that spot” is where his NPOA is.

Now have him shift position for windage only and repeat the exercise until windage is perfect.

Next do the same for elevation until it is also perfect.

Now have him inhale, exhale and relax and place the card forward of the rear sight so that he has no reference to either the front sight or the target. Place the card in front of the front sight to check step 1. He should still have perfect sight alignment, a result of good cheek weld.

Remove the card to check NPOA. If it is not correct, keep working with the shooter until it is correct and the shooter can gain NPOA on his own.

IMPORTANT: Once the shooter acquires the NPOA, they must **TRUST the NPOA!** In other words, don't fuss the shot, just shoot automatically when the sight picture is correct.

The "Card" can also be used to check for **suspected poor or inconsistent cheek weld**, (Sight alignment). Have the shooter take a good position, sights on the target. Have him do the usual NPOA drill, and place the card in front of the rear sight. (This will not allow him to have a sight picture, just good sight alignment). After he has relaxed, remove the card and place it in front of the front sight. (This blocks sight picture again) If his sights are not perfectly aligned, he has a poor cheek weld and is forcing it. Have him realign and weld again. Work with the card until he has a good cheek weld with good sight alignment.

Dry Firing:

One of the most important tools we can teach a shooter is to dry fire. Dry fire is important because it trains the mind and body how to execute the shot perfectly, every time. Since the shooter doesn't have to deal with recoil, noise, etc, he can concentrate on the 6 steps, position, the COF, and such, and as a bonus, it's free!

The brain doesn't know the difference between dry fire and the real thing, so it trains the brain, and through repetition, it trains the body. (Muscle memory)

Developing the skill to Follow Through is best done by dry firing because the shooter can train his trigger finger to hold the trigger back through repetitive action, and the brain gets trained to "Call the Shot" by noting the exact position of the front sight when the hammer falls. These two skills transfer directly to live fire, and the shooter will soon notice smaller groups and the ability to call his shots.

Shooters should also be taught to "shoot" the COF in their heads during prep period, while dry firing. The brain doesn't know the difference between shooting the course mentally and shooting it with live ammo, so it is being trained by repetition. By "shooting" the COF in his head, the shooter becomes more familiar with the COF and executes it more quickly and with less thought. All of this causes the shooter to get into "The Rifleman's Bubble", increasing concentration,

Eyes-closed Dry Fire drill:

The shooter dry-fires at a target from the prone position while the coach watches the muzzle. The coach calls out the steps, and right after step 4b says, "Close your eyes". The shooter then continues on with the steps. The coach is watching for changes in the muzzle wobble between eyes open/ eyes closed, during trigger squeeze, and during follow through. This will diagnose NPOA problems, trigger manipulation/ firing hand grip problems, and lack of follow through.

Firing line errors, Diagnosing:

Positional errors, such as Canting, Dragging Wood, cheek weld/ sight picture, lack of NPOA, not shifting for NPOA on each target, etc should be diagnosed by the instructors after close scrutiny of the position, groups, etc.

This is why we want them to engage the shooters on an individual basis and get up close and personal. Instructors and IIT's will model errors at times throughout the IBC to train IITs to find and fix problems.

See also: "12 Common Firing Line Errors" in Fred's Guide to Becoming a Rifleman, pgs 5 & 6 and "Troubleshooting on the Line" in the "Final Instructors Manual".

Grounding and safetying various rifles:

If possible, a variety of rifles commonly seen on the line should be displayed for IITs to learn how to load, unload and safe.

Mantra: Mags out, Bolts back, Safety on, Flags in, Grounded, Nobody touching it.
(Have them animate the demonstration, holding the hands up and backing away from the rifle)

Inches/ Minutes/ Clicks:

"Inches/ Minutes/ Clicks" is the method used to take the information we see on the target and changing the rifle sights to correct the point of impact to the desired place. It can also be used to measure group sizes independent of range.

The terms "Yards" and "Meters" are interchangeable for our purposes, the difference being so small, (less than 1/2 MOA). 4 MOA is all we ask

INCHES: Holding up a ruler, show what one inch looks like. Most everyone is familiar with this measurement, so no need to dwell. Explain that everyone has some sort of "metric" for inches: first joint of the little finger, dollar bill, etc.

MINUTES: First, explain what we mean by "minute of angle". Teach from the known to the unknown. Everybody knows what degrees of angle are, and can understand the visual of arms spread to a 90 degree angle. They can understand the visual of arms spread at a 30 degree angle, then a 20, then a 10, and then a 1 degree angle. Explain that a cone of 1 "degree of angle" would be 5 feet wide at 100 yards. Therefore, Degrees aren't usable for us to measure groups.

Next, explain that every degree is divided into 60 units called minutes. That 1 degree cone, then, is divided into 60 more sections, each of them being 1 minute wide. So then a 1 minute of angle cone will be 1 inch wide at 100 yards. (1 inch is 1/60th of 5 feet). This is a usable unit of measurement.

Now have them imagine a cone from the muzzle out to infinity which is 1 minute of angle, (MOA), wide. That cone has a constant angle, so **at 100 yards it is 1 inch wide. At 200 yards it is 2 inches wide. At 300 yards it is 3 inches wide, and so on and so on,** out to infinity.

So by definition. ...**1 MOA is 1 inch PER hundred yards.** (Make sure to **stress the “per”**) So then, at 50 yards it is ½ inch wide, and at 25 yards it will be ¼ inch wide.

Demonstrating the concept on a target:

Draw a target which has a nice group, just not on the target. Start by measuring the width of the group in inches and **ask the shooters how big that group is in minutes.** Ask them how big it would be at various other distances, emphasizing that the size is the same in minutes no matter what the distance, although it will change size measured in inches.

Now **draw a line vertically and horizontally through the center of the target.** Next **measure how far the center of the group is vertically and horizontally from the center of the target.** Write them down.

This is the “**INCHES**” part of the equation.

Now, convert those inches into minutes. **The first question should always be “What is 1 minute at THIS range?”** At 25 yards it is ¼ inch, so divide ¼ into the number of inches you want the shot group to move. Example: 2.5 inches low: 2 ½ inches divided by ¼ equals 10. So the sights have to be adjusted 10 minutes up. Write this down also.

This is the “**MINUTES**” part of the equation.

Now for “**CLICKS**”:

Explain that we have many rifles on the line, and they adjust differently, so it is up to the individual shooter to know what his sight adjustments are and apply the corrections, or “clicks”.

When asked how much to move a sight, the answer is always in minutes because you don't have any idea how the shooters rifle is adjusted. They should be able to calculate the minutes of angle required and then apply that adjustment to their sights.

For “analog” sights (no clicks—drift in dovetail or similar non easily adjustable sight), in the absence of better data, assume 1 MOA is about equal to about .006 inches—about the thickness of a sheet of paper. (SKS/ AK front sight is 8 MOA elevation per 360 degree

As with all instruction, we will boil this down to its essence and use simple, precise, easy to understand terms and methods.

Explaining NPOA

To a shooter unfamiliar with the term, Natural Point of Aim sounds pretty foreign. It must be defined simply and precisely for learning to take place.

Natural Point of Aim is the place where your relaxed body would place the shot.

Think of it this way: If you take a good position and do the first 3 steps of firing the shot, (A concept already familiar by this time), closing your eyes during the respiratory pause and relaxing and allowing everything to “settle” into its relaxed state, when you open your eyes the front sight will be on your NPOA.

This is because you have removed vision from the process, and without vision you will not muscle the sights to an unnatural spot.

In doing the above, the shooter “**Found, (Or verified), his NPOA**”. (Notice we don’t say “Got his NPOA”. A shooter can no more “get” his NPOA than he can get his belly button. He already HAS both. He just has to find one of them)

Once a shooter finds his NPOA, all he has to do is **place it on the target**. If the NPOA coincides with the target he can shoot a very nice group, since no muscle will be involved in keeping the sights on the target.

Demonstrating NPOA using the laser bore sighter:

One method for explaining NPOA is to use a **laser bore sighter** to allow shooters to see the results of the proper procedure. (It is best to place a bore sighter in a stock without a barrel/ receiver so you don’t have to worry about “sweeping”)

Have an Instructor take a solid prone position with the laser turned on. Place a “4 Minute square” target in front of him, about 10 feet away with the laser dot shown a few inches to the side and a few inches high or low. Now have the shooters talk the Instructor through shifting his hips laterally to gain a laser dot directly over or under the square. Next have them talk him through shifting his hips to bring the dot up or down until it is directly centered on the square. Shooters should talk the instructor through the NPOA drill again to prove it is on the target.

Teaching NPOA: (Best done during B&D)

Teaching NPOA requires a method that will give the instructor immediate feedback and accuracy while teaching the shooter how to do it on his own.

Begin by explaining what NPOA is, then move on to how to find it and place it on the target. Always start with “Do the first 3 “steps of firing the shot”. Then while they are in respiratory pause have them close their eyes and relax. Upon opening their eyes, the NPOA will be where the sights are.

“Carding the Sights” is the most efficient way to do this. Have the shooter take a good, solid prone position, (Another good time to reinforce the Steady Hold Factors!). Then have him do the first 3 steps of firing the shot: Align the sights, place the sights on the target, take a deep breath and close the eyes, then exhale and relax “into the sling”. Have the shooter open his eyes and tell you where the front sight is in relation to the target.

Now have him shift his position to bring the NPOA onto the target. You might want to have him do it in 2 steps, windage, then elevation, etc.

Once he is confident that he has his NPOA perfectly aligned on the target, place the card in front of, (Target side of), the front sight. Have him take a deep breath and relax.

Wiggle the rifle a bit to settle things.

Remove the card and have him tell you where the front sight is in relation to the target. He’ll likely be close, but not exact.

Have him shift his position again to perfectly align his NPOA with the target and when he is confident that he has verified it, card the sight again. Have him take a deep breath, exhale and relax “into the sling”. Remove the card and have him tell you where the front sight is again.

A couple of tries usually does it. Now remind them that they can accomplish the same thing by simply closing their eyes to remove vision from the process, just like they did the first time.

Have them keep that position, if possible, and fire the string.

The entire line can practice this by having them verify their NPOA on a few targets in sequence. For instance, have them all place their NPOA on the far left target on the line, then one near the middle, then one near the right end. This takes very little time and drives home the idea that they must shift the position to bring the NPOA onto EACH target.

So, in essence, the teaching of Natural Point of Aim comes down to just three things:

- (1) Explaining what NPOA is.**
- (2) Finding, (or verifying), the NPOA and then**
- (3) Placing the NPOA onto the target.**

But there IS a fourth consideration.....

Once the shooter does this, he must **TRUST NPOA**.

In other words, he should not fuss the shot and try to make it perfect, (The perfect is the enemy of the good). He must trust that having established his NPOA on the target, that when the sight picture is correct, the remainder of the 6 steps can be accomplished immediately!

Key phrases to use:

“Find or verify the NPOA”

“Do the first 3 steps of firing the shot and close your eyes”

“Relax”

“Shift your position”

“Place your NPOA on the target”

“Trust the NPOA”

Rifleman’s Bubble:

When the shooter is so deep in concentration during shooting to the complete exclusion of all distractions, he is said to be “In the Bubble”.

Rifleman’s Cadence:

The rifleman fires every shot “rapid fire”, which is about a round every 3 seconds. Our normal breathing cycle is about the same, so teach the Rifleman’s Cadence as such: Inhale....Exhale.... Squeeze, Inhale....Exhale....Squeeze, etc. This will keep the body oxygenated as well as improve the shooting because the shooters will not “fuss” the shot, and each shot should be more consistent.

Demonstrating Rifleman’s Cadence using the laser bore sighter:

Have shooters “talk” you through slinging up and a good prone position, then place your NPOA, (The dot), off the target, (A 4 minute square placed about 10 feet ahead works well) maybe low and left. Have the shooters talk you through placing the NPOA on the target. Once established on the center of the square, inhale, exhale, and say “Bang” when the dot returns to the target. Repeat this about 3 times in cadence and ask shooters how fast they think you could put rounds on the target. “As fast as you can breathe” should be the answer.

Ask them how it is possible to shoot every shot in cadence, even the first shot of a string. Explain that cadence does not begin with trigger squeeze, it begins with “inhale”. Inhalation starts the cadence, so every shot can be made in Rifleman’s Cadence. Once they have zeroed their rifle using the Rifleman’s Cadence it must be shot in cadence every time.

Rifleman’s Dance:

The “Rifleman’s Dance” is between the shooter and the target. When the shooter fires a shot and then gains feedback from that shot and makes some kind of correction for the next shot, it is said that he is doing the “Rifleman’s Dance”.

Talking targets, basic:

The shooters need to know how to communicate with their target. They also need to know that the target never lies. I like to use the analogy that I used to own a Beagle. I didn't speak Beagle, nor did he speak English, but when he stood by the back door and gave me the look, I knew he wanted to go outside. Therefore communication took place.

It's the same with shooters and their targets, they just need to learn how to communicate with it. When first teaching "talking targets", explain that the shooters need to ask themselves 2 questions when they look at their target: First, "How big is my group?" If the group is large, say, more than 8 or 10 minutes, then the target is telling them that they need to polish the 6 steps to shrink the group size. If they are shooting smaller groups than 8 minutes or so, then they can ask themselves the second question: "Where is my group?" If it is not centered on the target, then a sight adjustment is in order, using Inches/ Minutes/ Clicks.

Talking targets, advanced:

Once shooters are displaying competence in their position and groups begin to tighten, they should begin to self diagnose their groups to make corrections to position or troubleshoot problems. They should reference the diagrams called "Talking Targets", and apply corrections as needed.

Example: Shooter sees his groups strung from 11 o'clock down to 5 o'clock. Possibly a problem with the elbow not being far enough under the rifle as shown on the diagrams. Shooter corrects elbow position on the next group.

It is a good idea to start them taking the "Firing Line Card" to the target line with them early on Saturday. The newest versions of this card have the shot group analysis info on the back.

"Trigger Buddies": Or, "Tandem Trigger".

When a shooter has trouble keeping the finger on the trigger throughout the shot, or with not following through, the instructor should place his finger inside the trigger guard, in front of and lightly touching the shooters trigger finger, following the shooters finger through the shot sequence. This makes the shooter aware of his finger on the trigger and repetition will train him to keep the trigger finger in contact with the trigger and follow through, holding the trigger back.

Sight adjustments/ zeroing various rifles: M1/ M14/ AR15/ AK/ SKS/ 10-22/ FAL

If possible, a variety of rifles should be displayed and all IITs should learn how to adjust and zero each type commonly seen on the line at an Appleseed event. Tables for sight adjustments should be distributed to all IITs.

AK/ SKS type rifles:

Set rear sight on “2”, drift adjust front sight for windage, (Approximately .006” per MOA), & Adjust elevation @ approximately 8 minutes per turn of the front sight. (Sight moves opposite of the way you want the groups to go)

AR15 type rifles:

Set rear sight to mechanical zero on windage and “3” elevation. (Most types) Adjust front sight for elevation. (Note differences in barrel lengths/ A1 or A2 sights, etc. Refer to chart for adjustments)

M1/ M14 type rifles:

Set rear sight windage to mechanical zero. Adjust elevation up 10 clicks initially, then 1 click per MOA to zero. Adjust front sight for windage, approximately .006” per minute. (If time allows. If not, adjust rear sight for windage @ 1 MOA per click)

Tech Sights on 10-22s:

Adjustments are approximately 1 moa per click for carbines, (.8 moa for 22” barrels)

Teaching the COF:

Explaining the “Hits Count!” target and COF:

The “Redcoat”, or “Hits count!” targets are a simple way of **demonstrating** to yourself what your actual “**effective range**” is.

There are 5 red targets on the sheet, one each “silhouette” representing a man sized target at 100, 200, 300, and 400 yards, and a small rectangle representing a mans head size at 250 yards.

Back during the Revolutionary War, a competent Rifleman could hit a man’s head at 250 yards and a man at 400, so you should be able to do that easily with your modern rifle, right?

The **smallest target on which you can make three shots is your “range rating”**. In other words, you have 3 rounds in the red on the 100 and 200 yard targets and only one in the 300 and 400, you are a “200 yards shooter”. A final round in the rectangle is extraordinary shooting in deed!

All shooting is **from a prone position**.

Place **3 shots on each silhouette target**, and **one on the rectangle**.

There is no time limit.

You will **prep with 13 rounds**, (One for each of the original colonies/ states)

After the string of fire, center the shooters up and ask how many are 400 yard shooters, then 300, 200, 100, and finally, how many made the head shot. Record the data. Explain that this is their base data and where they will begin. Have them mark the holes and save the target to shoot later and see any improvement.

Uses and COF for “Four Minute Squares”:

* Sighters: The initial use is for sighting in, assessing group size, polishing on the 6 steps.

* Practice in each of the positions prior to shooting the AQT. Working on proper positions, sling use, etc.

* NPOA drills: Fire 2 rounds on the first square, then 2 on the square next to it, forcing the shooter to change NPOA for the second target. Time the event for added pressure, allowing 3 seconds per shot and 5 seconds for the NPOA shift. Fire from prone and sitting positions. If you really want to shrink those standing groups, fire on 4 minute squares for a bit.

* Magazine change drill 1: Fire 2 rounds, change mags and fire 2 more on the same target, forcing the shooters to maintain NPOA during the mag change. Time the event for added pressure. Emphasize that smoothness equals speed and that the reload mag should be oriented so that dropping the trigger hand to it is all that is required. Fire from prone and sitting positions.

* Magazine change drill 2: Fire 2 rounds on the first target, reload, fire a third round on the same target, then fire 2 rounds on the second target. This checks that the shooters maintain NPOA during both the mag change, and the shift to the next target.

Uses and COF for CAQT targets (Classification AQT):

Shooting multiple CAQTs, (Repetition drills)

In the absence of AQT “practice targets”, CAQTs can be posted side by side to allow for repetition drills in each stage. This helps the shooters improve more quickly on each stage as more is learned by immediately shooting the same stage again.

*Post 3 CAQT targets, side by side for each shooter.

*After the introduction of the standing position, shoot 3 stage one targets sequentially, allowing shooters to check results between each target.

*After introduction of the sitting/ kneeling position, shoot stage two, 2 strings in sequence, allowing the shooters to check results between each set. (Mark the hits and use the center target twice)

*Introduce prone rapid by firing a stage 3 on each of the remaining prone targets, (Use only 3 targets on the 4th stage, with the proper rounds on each, 3-3-4)
(Shooters have typically been shooting prone slow all day so no need to do a 4th stage)

Explaining and teaching the AOT

Sighters: The smaller target in the upper right corner is for sighters. Should you choose to adjust sights for a 6 o'clock hold for each stage you should adjust your sights so as to strike the defined "X's" for each stage.

Since the target remains at a constant distance we are trying to simulate a different range by making the target smaller. Your bullet will strike at the same spot, (point of impact or POI), according to your point of aim. (POA, 6 o'clock hold) because it is at the same distance.

If you have been using a 6 o'clock hold on the one inch squares, your bullet is hitting 2 minutes above POA. (1/2 inch above the bottom of the square) (This should be couched in the form of a question to the shooters: "Right now, with a six o'clock hold, how high is the point of impact versus the point of aim?")

For you to be able to hold at 6 o'clock on each target and hit the "V" ring on the various sized targets you will have to make a sight adjustment when you change targets.

The highest X is for the standing target. Notice how the distance from the bottom of the sighter target to the X equals the distance from the bottom of the standing target to its "V" ring. The same holds true for the middle X, representing a "V" ring hit for the sitting target, and the lower X, a hit in the "V" ring on the prone targets.

Note how many minutes above your base 25 yard setting each X is, and adjust accordingly.

So use the sighter period wisely and note the sight adjustments you made to get the shot from the bottom X, (25 meter Zero) to the middle and upper X's, and write these down. Now, just begin standing with the upper setting, then, after the standing course, click down the requisite number of clicks to get you on the sitting targets before you shoot that course, then just click down the appropriate number of clicks for the prone targets before you begin that stage. (Your "base" setting for 25 meters) Using this method you can hold 6 o'clock for all stages.

Some people prefer to hold “Center of Target”, and not adjust their sights between stages and will have to hold “in the black” for the larger targets. This is not as precise, but yields good results. Shooters with sights that are not readily adjustable will need to shoot Center of Target across the entire course. (10/22, SKS, etc)

If this is not possible for the smaller targets, simply shoot the 3rd and 4th stages with a 6 o’clock hold and “hold into the black” on the 1st and 2nd stages. A bit of experimenting will reveal the proper amount to hold into the black.

The main thing is to decide which way you will shoot, and stick with it throughout the event.

During your prep period on each stage suggest that the shooters “shoot” the stage in their head. (Visualization) Go through each step of the stage, i.e.: “I will drop from standing to sitting, quickly acquire my NPOA, fire 2 rounds into THAT target, reload, fire 3 more rounds into the same target, then SHIFT my NPOA and fire 5 rounds into THAT target”. (Second stage of the AQT)

Shooting it in your head gives your brain more experience with the scenario and you will already be familiar with it when you actually shoot it.

Presentation of the Courses Of Fire:

Proper format:

- 1. Introduce the stage or target:** (“This is the 2nd stage of the AQT, it is the sitting or kneeling stage”)
- 2. Explain how the stage starts and is shot:** (“You will start standing and drop to your 2nd stage position”)
- 3. Explain the COF:** (“You will place 5 rounds on each target”) (Instructors should think “Holes in target” when they explain the COF)
- 4. Time limit:** (“You will have 55 seconds to complete the stage”)
- 5. Magazine preparation:** (“You will prep 2 magazines, 2 and 8”)
- 6. Added Information:** (First couple of times the stage is shot-“You will place 2 rounds on the first target, reload, place 3 more on that target, then shift your NPOA and place 5 rounds on the second target”)

First stage:

- **This is the first stage of the AQT, the Standing stage.**
- **You will start and remain standing.**
- **Place all ten rounds in the upper, (largest), target.**
- **Time limit is 2 minutes**, so use your time wisely!
- **Prep ONE magazine with 10 rounds.**
- I suggest that you “let down” every 2 or 3 shots and take a couple of deep breaths to allow your arms to rest and to oxygenate the eyes.
- Again, get a good NPOA, have the first magazine in your pocket, and don’t move!
- Use your prep period wisely. Sling up and dry fire. Don’t forget to set your sights. When you acquire your NPOA, don’t move your feet! Place the prepped magazine in your back pocket so you don’t have to reach down and lose NPOA.

Second stage:

- **This is the Second stage of the AQT, the Sitting or kneeling stage.**
- **You will begin this stage standing and drop to the sitting, kneeling, or other acceptable position.**
- **You will place 5 rounds on each target.**
- **The time limit is 55 seconds.**
- **Prep 2 magazines, one with 2 rounds and one with 8.**
- All transitions are done with rifles unloaded and safeties on!
- Place 2 rounds on the first target, (your choice which one), reload, and then fire 3 more rounds on THAT target. Then you will place 5 rounds on the remaining target. (If you loose count, put 5 rounds on the last target and back up to the first, putting the remaining rounds on that target)
- Don’t let the “time monkey” get to you. It is better to have 8 well placed rounds down there than to have 10 poorly placed rounds caused by rushing the shots. Cadence

will make the time irrelevant.

- Make sure you fire on YOUR target after reload! This is where the NPOA really counts because it will line you right back up with your target.
- Don't forget to shift your NPOA between targets.
- For that reason, don't waste your prep time! Sling up snug and dry fire BY THE NUMBERS. When you get your NPOA, mark your feet position using chalk, stripper clips, magazines, etc, so you can drop from standing into your NPOA.
- Place the magazines where you can reach them without looking and have it oriented so you won't fumble the load and reload.

Third stage:

- **This is the 3rd stage of the AQT, the “Prone Rapid” stage.**
- **This stage begins standing and drops to the prone position.**
- **Place 3 rounds on the left and middle targets and 4 rounds on the right target.**
- **The time limit is 65 seconds.**
- **Prep 2 mags with 2 and 8 rounds as before.**
- All transitions are done with rifles unloaded and safeties on!
- Get a good NPOA during your prep period and place the first mag in your back pocket, the reload mag on the mat where you can get it without fumbling.
- You will need to shoot 2 rounds, reload, one more round, shift NPOA, 3 rounds, shift NPOA, then 4 rounds. (Or, if shooting right to left, 4-3-3) **Explain** the objective/strategy of shooting left to right or right to left.
- Again, have the magazines oriented and in place so you don't fumble the load and reload.
- Mark where your forward elbow is!
- If you lose count, go to the last target and place the requisite number of rounds on that target and back up until you run out of ammo.

Fourth Stage:

- **This is the 4th stage of the AQT, the “Prone Slow Fire” stage.**
- **This stage begins from and is shot from the prone position.**
- **Place 2 rounds on the left two targets, and 3 rounds on the right two.**
- **Time limit is a generous 5 minutes.**
- **Prep one magazine with 10 rounds.**
- Get a good NPOA on the first target and place your magazine on the mat where you can get it easily.
- We recommend that you shoot this stage at your usual “steady” cadence and use the luxury of time to get a good NPOA on EACH target.
- If you lose count, go to the last target and back up.

Shooting the RFAQT

The RFAQT can be shot “Straight Through” as long as all shooters unload prior to each transition.

On the “Fire!” command, shooters will fire at will.

There is a 4 minute time limit

They should prep 4 magazines with 10 rounds each