



# **STARTERS**

by  
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**A Manual of Technique and Mechanics for  
New High School Track Starters**

**Produced for the Association of Track Officials of Michigan**

This document was adapted from a USA Track & Field training monograph written by Eric D. Zemper, Ph.D., drawing on the previous writings and expertise of Dr. Kelly Rankin and Dr. Charles Dailey. Much of the material contained herein has been utilized in training clinics for starters developed and presented for several years by Drs. Dailey, Rankin and Zemper. That clinic, in turn, was based largely on a book written by Drs. Dailey and Rankin, *Track Starter's Guide*, published in 1990 by the American Alliance for Health, Physical Education, Recreation and Dance, 1900 Association Drive, Reston, VA 22091. (Elements of that book are used as the basis for parts of this document with the authors' permission.)

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(NOTE: Throughout this document, where either masculine or feminine gender is used in referring to officials or to athletes, both masculine and feminine gender is implied.)

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# Starters

## Introduction

Every year in this country there are millions of track athletes participating in tens of thousands of track meets started by thousands of different starters. Every starter brings a unique background and set of experiences to this task. Despite working under a specific set of rules governing the starting of races, there often can be wide variability in the way races are started from one starter to another and from one region of the country to another, or even within a small geographic area. While variety may be the spice of life, too much variety in the way starters handle a start can be very distracting for the athlete on the starting line. The start of any race should be a time when athletes can focus on their performance and not have to worry about just how this particular starter operates. At the start of a race, all actions and activities of a good starter will be conducive to a calm atmosphere that allows the athletes to focus their full attention on their start and on their race.

This document is intended to present some suggestions for providing a consistent approach to handling duties at the starting line for new high school starters. In some cases, alternatives for specific techniques and mechanics of starting are presented, with the idea that a starter will feel free to try these different techniques to see what feels most comfortable. But the overall goal is to give everyone who reads this document a common background and approach to the duties of a starter in the hope that it will help you feel more comfortable when taking on the responsibility of being a starter for the first time

Being a starter at the high school level in Michigan involves more than just pulling the trigger to start races. There are a number of 'behind the scenes' duties and responsibilities as well that are critical to completing a successful track and field meet. Except in the largest meets, the starter normally is also the referee for the entire meet, including the field events. For this reason, once you have become a registered track official with the MHSAA, you are strongly urged to do two additional things: 1) Find a mentor, an experienced starter with whom you can work for a period of time to 'learn the ropes' of handling not only the track events, but the whole track and field competition (Hint: A primary mentor candidate would be the person who gave you this document); and 2) Get yourself trained as a complete track and field official, with knowledge of officiating all the events. The most complete training program available is offered by USA Track & Field. In Michigan this program is presented as a day-long clinic, offered 2-3 times per year, which covers the basic rules and mechanics of officiating all track and field events using high school, NCAA and USATF rules (there are important differences between the rule books, but this document will focus only on the high school rules). To receive information about upcoming training clinics, contact Eric D. Zemper ([zemper@msu.edu](mailto:zemper@msu.edu)) or Doug Weir ([doogenut@gmail.com](mailto:doogenut@gmail.com)). Once you have become registered with the MHSAA, you also are encouraged to join the Association of Track Officials of Michigan (ATOM), which also offers an annual clinic on selected topics (contact Christine Lee at [christinejlee10@yahoo.com](mailto:christinejlee10@yahoo.com)).

## Characteristics of a Good Starter

The primary goal of any competent starter must be to ensure all runners receive a fair and equitable start for each race. The Golden Rule for starters (and for all track and field officials) should be: *No athlete is allowed to gain an unfair advantage, and no athlete should have to suffer an unfair disadvantage.* The atmosphere at the start of a race can be one of ease and calm or one of confusion,

based on the approach and the actions of the starter at the starting line. A competent starter is able to take command and remain calm throughout the starting process. This begins with the ability to give clear, precise instructions and the ability to give the starting commands in a strong but calm voice. This in turn will help relax the competitors and make them feel confident in the starter. If the athletes feel confident that the starter will provide a clean, fair start for everyone, without any quirks or distractions, that is one less thing they have to worry about, which allows them to focus more attention on their race. A good self-evaluation check for the starter (and any other official) is that if you leave the meet unnoticed, your job has been well-done. The attention should always be on the athletes. Officials are there only for the purpose of ensuring the meet is conducted according to the rules, not to 'grandstand' or draw attention away from the competitors.

Other characteristics of a good starter that often are mentioned include being physically fit, mentally alert, having good eyesight and reactions, the ability to concentrate and maintain complete focus, an enjoyment of working with youth, and a love of the sport. Common sense and tact also are required. Because the starter is in complete control of the start of a race, and the starter's decisions cannot be appealed, he must have a complete and thorough knowledge of the rules regarding the starting of races, and an understanding of competition requirements and the needs of the athlete. Since things can happen so quickly at the starting line, the starter must be decisive, but not brusque. A good starter must have a great deal of patience, and must be able to project an air of calmness at the starting line. It is not enough to be calm yourself; you must be able to project that sense of calmness to the athletes. On occasion a good sense of humor also is necessary.

A competent starter should be relaxed and never try to overwhelm the athletes with his or her presence. A competent starter also practices preventive officiating. If a starter sees a situation developing that could result in a problem, she should do something to correct the situation immediately, before it does become a problem. As should be the case with any other official, the competent starter always gives the athlete the benefit of the doubt. And no matter what the level of competition, whether a junior high meet, the Special Olympics, or a national championship, the starter should be able to project the feeling that these athletes are important and that this is the most important race ever started.

## **Pre-Meet Activities**

Leaving aside prior details like confirming the date and time of the meet with the meet director or host coach, the first thing a starter should do on the day of a meet is to check the equipment bag. Make sure all the equipment needed for that day and the anticipated weather conditions is available (see the section at the end of this document on "Starter's Equipment - What's in the bag?"). It is a good idea to arrive at the track at least an hour before the start of the first event, to allow time for an unhurried review of the track facility (especially if you have not worked at this particular track before). This includes checking for the correct location of all starting lines and the finish line, location of cables (if fully automatic timing [FAT] with a hardwired cable to the timing system is being used) and any other electronic equipment such as a sound system. This also would be a good time to preview and plan where the best positions will be to stand (or to place the starter's stand) for the best view of each start (see the later section on Position of Starter and Recall Starters). If the track does not have a 3 meter 'walk up line' for the starting lines of the distance races, it is a good idea to carry a piece of white or yellow sidewalk chalk with you in a plastic baggie to make your own 3 meter marks on the track. At this time it also is advisable to check with the meet director or referee to see if there are any last minute changes in the event schedule, or any special circumstances the starter/referee needs to be aware of.

Also, meet with the chief clerk to confirm the process for bringing athletes to the starting line and to review the instructions the athletes will be given by the clerks. (But be aware that at small local meets you may also be serving as the clerk at the starting line.)

If there is more than one starter assigned to the meet, the starter and recall starters should get together for a pre-meet conference. If any members of the crew have not worked together before, this is the time for the starter to briefly review the positions of each recall starter for each type of race, and the communication signals between starter and recall starters (see later sections on these topics). The chief or head starter should let everyone know who is assigned to start each race. If there is a complete novice on the crew, this individual might need to spend a couple of meets being exclusively a recall starter, observing and getting a 'feel' for how everything works. Otherwise, it is a good practice for the starter to assign the responsibility of starting a few races in each meet to each of the recall starters on the crew. This can begin with starting distance races for novice starters, gradually taking on responsibility for starting races using starting blocks once they gain more experience and confidence. The starter should act as a mentor to those on the crew who are new to starting, offering constructive advice and praising good technique and mechanics. It is helpful for the starter to give each member of the crew a 3x5 card with the event schedule printed on it, so each can make notes on assignments and have a handy reference during the meet for the event order and time schedule. If there is someone responsible for moving the starting blocks, that individual also should have a schedule card.

The starter also should meet with the finish line crew. If you have not worked with this set of finish line officials, it is a good idea to review the procedures you will use, and any whistle signals or arm signals you will use, so they know what to expect. (See the later section on communication between the start line and finish line.) When fully automatic timing (FAT) is being used, check with the camera crew to confirm how they will let you know when they are ready for the next race, and how you will alert them that you are ready to start the next race. This also is the time to perform a test of the gun sensor, whether using a cable or a radio link, to ensure the entire system is operating correctly.

Finally, if there is an announcer for the meet, it's a good idea to check with this individual to work out the logistics of when to start announcing race participants' names, so these announcements do not delay the start of the race. Usually this announcement should begin about two minutes before the scheduled start of the race, or right after you have given the order to remove the warm-up gear. And make sure the announcer understands that, once you have called the runners to their marks, an announcement should not begin until after the race has started (unless it is a call for quiet for the start). Communication between the starter crew, the finish line, the clerks and the announcer, and an understanding of the need to avoid delays, are vital to keeping a meet running on time.

## **Recall Starters**

In small meets, particularly at the junior and senior high school level, a starter often may have to work without a recall starter. But if one or more recall starters are available, these individuals normally are responsible for assuming control of the athletes when they are brought to the start area by the clerks, doing last minute checks of bib numbers and uniforms, and ensuring each athlete is on the proper start line and in the proper lane or start position. In races using starting blocks, the recall starter should be prepared to assist athletes having problems setting their blocks. When all is ready, the recall starter lets the starter know that the athletes are ready to begin the race, and then assumes the assigned position to observe the start, checking for proper foot placement on the blocks, looking for any toes or fingers over the line, and watching for false starts.

## Instructions to Competitors

Unless there is a clerking crew with whom you have made arrangements to give the athletes their instructions before the race, you will need to give some brief instructions before the start of each race to ensure that your procedures and expectations are clear to every runner, especially if you are working a small meet with minimal clerking support. These explanations should be given about 2-3 minutes prior to the start, and be kept brief so as not to unduly distract the runners as they prepare for their race. The length of your comments will vary with the experience level of the competitors. With junior high school, and even high school competitors early in the season, you will want to be thorough and give instructions up to and including the finals. Later in the season, after the runners have had some experience, you can cut the instructions back to brief reminders of what is expected.

An example of a more thorough set of instructions appropriate for sprint races (400 M or less) for junior high school or early season high school runners is as follows:

“There will be two verbal commands and then the gun to start the race. Please stand behind your blocks and, when I give the command “On your marks”, come forward and get settled into your blocks without any delays. When everyone is settled, I will give the “Set” command. Come up to a full, complete set position without any hesitations or slow roll-ups, and then hold steady and wait for the gun. I will not surprise you with a quick gun; I will hold you until I am satisfied everyone is still and in control. React to the gun; do not try to anticipate it to the point that you disqualify yourself. Are there any questions?”

In cases where there are multiple heats of a straightaway race, rather than giving instructions to each heat separately, it saves a lot of time to gather the runners from all the heats together and give instructions to all of them at once before the first heat.

An example of the starter's instructions for longer races (more than 400 M) is as follows:

“There will be one verbal command and then the gun at the start. We will use the ‘International’ start or walk-up start. Please line up about 3 meters behind the starting line and, on the command “On your marks”, come forward quickly to the starting line, checking to make sure your toes are not on or over the line. When everyone is still and in control, I will fire the gun. If anyone goes down because of contact in the first 100 meters, we will fire a recall gun and bring you back to start you again. You will receive lap times here on every lap. Are there any questions?”

In each case you have reminded the runners of what the command cycle will be, and what your expectations are after each of the commands. And you have assured them that you will give everyone the opportunity to be focused and thoroughly prepared for the starting signal.

Because high school rules do not require the use of starting blocks in races of 400M or less, there will be occasions where individual runners in the shorter races will not use starting blocks and may use a standing start. In such cases the starter should identify these athletes and give them additional instructions following the instructions to those using blocks. These competitors should be informed that after the “On your marks” command they should toe the line and stand relaxed until the “Set” command, since it will take some time for those using blocks to get settled into their blocks. Upon the set command they should assume their final starting position and hold steady until the gun is fired. Sometimes a runner in this situation will begin to move or fall forward before the gun, often because



they are leaning forward and lose their balance as a result of their feet being too close together. The starter or recall starter should call the competitors up, suggest to the runner having the problem that a wider stance might solve the problem, and start the command cycle again.

If you have occasion to start a race with one or more athletes in wheelchairs, the starting instructions are basically the same as for any other athletes, three commands for the sprint races and two commands for the distance races. The modification in instructions for the wheelchair racers is that they must have the axle of the front wheel of their chairs behind the starting line; the axle, not the torso, also defines the finish for wheelchairs.

## **Position of Starter and Recall Starters**

When the pre-race instructions are completed, the starter crew should move to their positions for the start of the race. The exact positions can vary considerably, depending on whether you are working alone or with one or more recall starters, and on the physical layout of the starting area.

There are two primary factors to keep in mind when deciding where to place the starter and any recall starters:

- The starter should, in most cases, be in a position where the entire field of runners can be seen in as narrow a field of vision as reasonably possible. This is an absolute must if the starter is working alone; in races with long staggered starts (e.g., 4x400, 4x200) it may be impossible to see all eight lanes and there will have to be at least one recall starter to cover part of the field.
- The starter ideally should be positioned so the sound of the gun travels roughly an equal distance to the runners in the inside and outside lanes. This factor normally is secondary to the visual factor, but it does become more critical in races with long staggers.

With regard to the first factor, the starter's field of vision, keep in mind that while we may have a fairly wide field of view with peripheral vision (about 160°), the area where we have good visual detail sufficient for making officiating decisions is limited to about 30° in the center of our field of vision. That 30° can be estimated by placing your hands at arm's length in front of you with fingers fully spread and thumbs touching. The area between the tips of your little fingers approximately defines your 30° field of central vision where you can see and identify small movements with certainty. This limitation in the field of vision must be taken into account when deciding where to place the starter and recall starters. In addition, it generally is best to have a side or oblique view of the field of runners, to most easily detect early forward movement indicating a false start; but this may not always be possible.

With regard to the second factor, distance the sound of the gun travels, keep in mind that sound travels an average of 1,125 feet/second (343 meters/second), which potentially can mean a difference of 0.2 seconds between when runners in the inner and outer lanes hear the gun in a race with long staggers, depending on where the starter stands. Differences like this might not be too critical in situations where hand timing is being used, since the average error in hand timing is around 0.2 seconds, but when FAT is being used it can become quite critical when tenths and hundredths of a second decide places or who goes to the next round of competition. So, keeping in mind the starter's primary responsibility to provide a fair and equitable start for all competitors at the start line, this factor should be taken into account when deciding on placement of the starter and recall starters, particularly when FAT is being used.

Taking these factors into account, the following are *general suggestions* for placement of the starter and recall starters in different situations. (In the diagrams accompanying the following text, the lines radiating from the starter/recall positions are an approximate indication of the 30° center of field of vision noted previously.)

**Sprint races - straightaway.** For the short sprint and hurdle races on a straightaway, the starter stands about 10-12 meters in front of the starting line, near the edge of the track, or back a few meters from the edge of the track if there is sufficient room. This is far enough away to provide good visual contact with every lane, but close enough that the verbal commands can be heard by all the runners without having to shout, and it provides a more equidistant position with regard to sound of the pistol to lanes 1 and 8 (Figure 2).

Whether the starter stands on the inside or the outside of the track may be personal preference, or it may be dictated by the physical facility (e.g., a fence right next to the edge of the track on one side). If automatic timing with cables rather than a radio link for the gun sensor is being used, the location of the sensor cable may dictate on which side of the track the starter will stand. If possible, it is best to stand on the opposite side of the track from the timers at the finish line, since this makes the starter more easily visible to the timers.

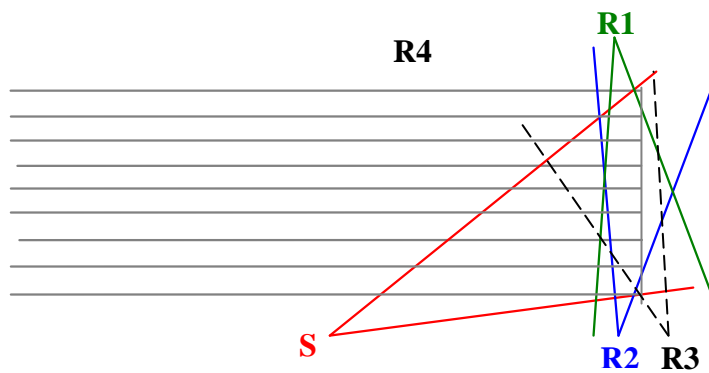


Figure 1. Straightaway races

If there are recall starters available, they should take the following positions. If there is one recaller, this person should stand on the opposite side of the track from the starter, about 1-3 meters in front of the starting line and 3-5 meters from the edge of the track (if the physical facilities allow) (R1 in Figure 1). While the recall starter should be responsible for viewing the whole starting field, it is easier to encompass more runners in your field of focus when those runners are further away as opposed to those in the closest lanes. Therefore, the recall starter who must stand next to the edge of the track near the starting line, because of a fence or the physical layout of the facility, should primarily focus on the five runners on the opposite side of the track, and keep track of the closest runners only in peripheral vision. The starter, while still covering the whole field, can focus on the five runners farthest from her side of the track, and the two will overlap on the middle two runners (assuming an eight lane track).

If a second recall starter is available, both recall starters should stand on opposite sides of the track about 1-3 meters in front of the starting line (R1 and R2 in Figure 1), and 3-5 meters from the edge of the track (if possible). The two recall starters should 'criss-cross' their field of focus, primarily viewing the five runners farthest from themselves, with the starter viewing the whole field and focused primarily on the middle of the track.

If there is a third recall starter, this person should stand 2-3 meters behind the starting line on either the same side or the opposite side from the starter, and be primarily responsible for watching for slipped blocks. This position (R3 in Figure 1) also is an option for the second recall starter (R2) when working with two recallers. If you have the luxury of a fourth recall starter (likely only in a very large meet), this person may be positioned either behind the starting line on the side opposite the third recall starter, also watching for slipped blocks, or 10-12 meters out in front of the starting line on the opposite side of the track from the starter. Of course, any recall starters positioned behind the starting line also are in position to note any foot or leg movement indicating a false start.

**Sprint races - staggered starts (up to and including 800 M).** Ideally, for races using a staggered start and with at least one recall starter available, the starter should be located on a raised platform on the infield approximately equidistant from lane 1 and lane 8, and providing the preferred side view of all competitors (Figure 2). This has been found to be the position that provides the fairest starting conditions for all competitors with regard to sound travel and reaction times, and with regard to the starter's view of the athletes (assuming at least one recall starter is available). To ensure a reasonably equidistant position, it should be slightly to the left of the line from the origin of the radius of the curve through the midpoint between the start lines for lanes 4 and 5 for an eight lane track, or through the start line for lane 5 on a nine lane track (as indicated by the black dashed line in Figure 2). The number of meters from the inside edge of the track for the starter's position will vary from one facility to another, but normally you can expect a reasonably equidistant position to be (from the center of the radius) between one-quarter and one-half of the length of the radius.

The starter's position also may be dictated by the physical facility. For instance, there may be a fence on the inside of the track blocking easy access to the infield. Or the 'ideal' position may be in a throws sector, or in the middle of an active high jump or pole vault area. In such cases, the starter may need to stand near the inside edge of the track beyond the competitor in the outermost lane.

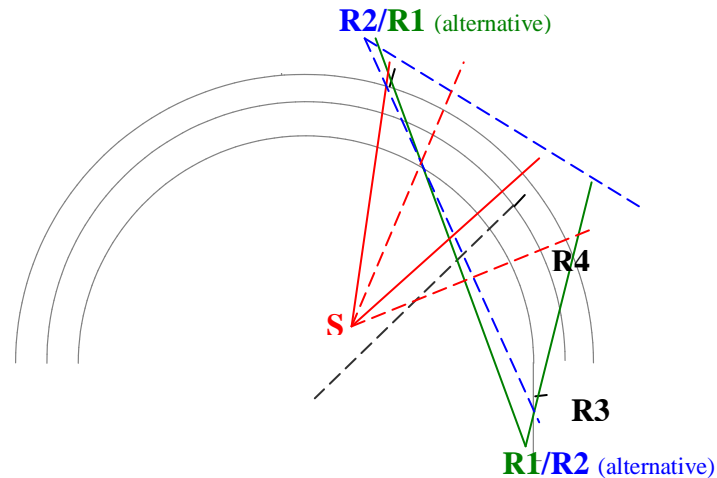


Figure 2. 200M-400M – Starter and Recall positions

If the starter is working alone, standing on the outside of the track beyond the start line for lane 8 is preferred, so there is a good view down the line of runners and they are all in a relatively narrow field of vision (Figure 3). In this case, the need for visual control of all competitors to prevent missing a false start must be the primary consideration, outweighing the need to have an equidistant position for the gun sound. If there is at least one recaller, the starter should be positioned on the infield. Again, this may be impacted by the location of the sensor cable if automatic timing is being used.

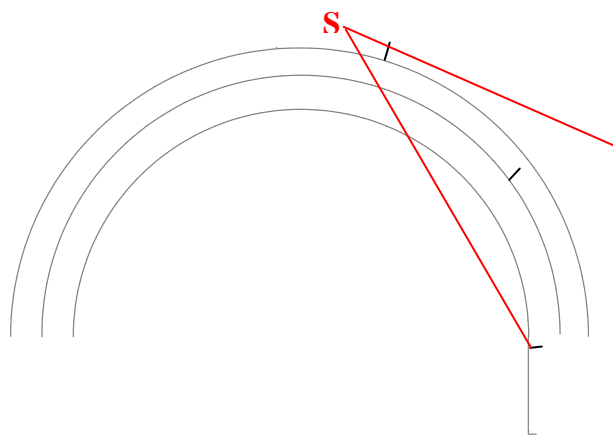


Figure 3. 200M-400M – Starter working alone

If there is a recall starter, this person could be positioned on the inside of the track slightly behind lane one, looking up the front of the line of competitors with a view of all of them, keeping them in a fairly narrow field of vision (R1 in Figure 2). Alternatively, the recall starter can be stationed on the outside of the track beyond the competitor in the outermost lane, looking back down the row of competitors, with the starter in an equidistant position on the infield. If there is a second recall starter, that individual can take the position not taken by the first recaller, on the inside or outside of the track looking up or down the line of runners. An alternative position for the second recall starter is on the outside of the track behind the level of lane 1, with a view of all competitors from behind (R3 in Figure 2). From this position the recall starter can also watch for slipped blocks.

If there is a third recall starter, this person should stand near the outside of the track at about the level of lane 1, watching for slipped blocks (R3 in Figure 2). On those occasions when a fourth recall starter is available, the third recall starter should be positioned on the outside of the track at about the level of the starting lines for lanes 2-3, and the fourth recall starter on the outside at about the level of lanes 5-6 (R4 in Figure 2), both covering half the field and watching for slipped blocks.

**Relay Races (4x400, 4x200).** The most difficult races for the starter crew to cover are the relays with long staggers, the 4x400 and the 4x200 being seen in high school competitions. This is a situation where the starter must be willing to trust the recall starter(s), because not all lanes can be seen in one view if most of the lanes are filled. Again, the two primary factors of visual control and equidistant sound carry have to be considered, and are particularly important in these events. The ideal position for the starter when working with two or more recall starters is again on the line defining the radius through the midpoint between the start lines for lanes 4 and 5 on an eight lane track, or through the start line for lane 5 on a nine lane track (Figure 4). In this case the most equidistant position for sound of the gun will be essentially at the center point of the turn radius (if possible, given the physical facility).

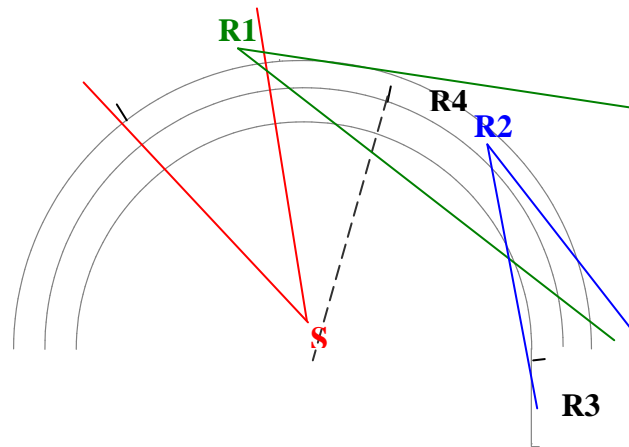


Figure 4. 4x400-4x200 – Starter and Recall positions

A minimum of two recall starters are necessary, the first recall starter can be positioned near the outside of the track near the start line for lane 7, looking back toward the finish line and viewing lanes 5-2 or 6-3 (Figure 4). The second recall starter should be on the outside of the track between the start lines for lanes 3 and 4 and viewing lanes 1 through 3. Often there may be a judges stand, signs, or other obstructions near the finish line blocking the view of lane 1 for the starter and the recall starter in position R1. If there are additional recall starters, they can be placed as indicated in Figure 4, primarily watching for slipped blocks from behind, but also for false starts. The starter views lanes 6-8 or 7-9. In these situations the starter is not going to be able to check all lanes after the “Set” command, and will have to depend on signals from the recall starters beyond those normally used for indicating readiness for the “Set” command. R1 would not signal until he has seen the final signal from R2, and the starter keys on R1. Obviously, this ‘relay’ of signals has to be done with no delays.

A starter working alone at a high school meet has a major problem with these events if more than three or four lanes are being used, which can be reasonably solved only by getting someone, possibly from the finish line crew, to act as a recall starter. Figure 5 illustrates the suggested positioning for this situation. The starter will be outside the track and beyond lane 8 (or 9) looking back to view lanes 8 through 3 or 9 through 4. The recaller will be toward the outside of the track approximately at the level of the start line 5 (for a nine lane track) or between the start lines for lanes 4 and 5 for an eight lane track, viewing lanes 1 through 4. The signaling system will be the same. If there is not a spare starting gun available, the recaller will have to be given a whistle to signal any call up or false start. While this positioning violates the equidistant sound factor, visual control must take priority. However, an alternative to be considered is to have the starter and the recall starter exchange positions shown in Figure 5. This positioning has the advantage of being more equitable with regard to sound carry between the inner and outer lanes, but the disadvantage is that the starter must take time to glance back to the recall starter and the outer lanes to confirm all athletes are in the ‘set’ position before firing the gun.

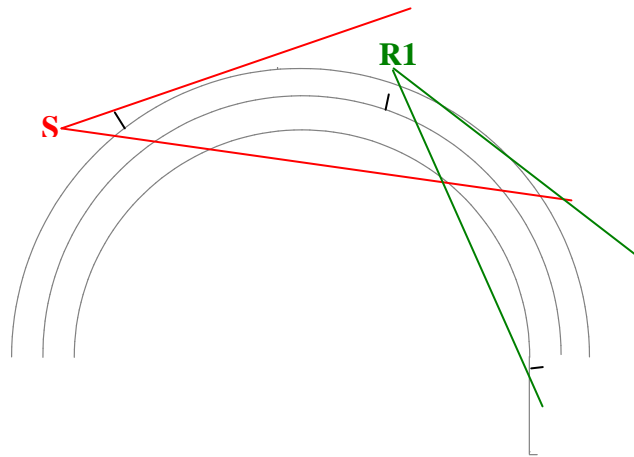


Figure 5. 4x400-4x200 – Starter working alone (with volunteer Recall)

**Distance races (1500 M or longer).** For distance races the starter should stand about 4-5 meters in front of the starting line, either on the inside or the outside of the track, depending on personal preference, physical facilities or location of the sensor cable. After the start of the race the starter should turn and view the runners for the first 100 meters of the race, watching for the possibility of a recall because of a runner going down due to contact. If a recall starter is available, this person should be positioned on the outside of the track about 80 meters out from the starting line, watching for fallen runners. A second recall starter can be stationed either 40 meters out from the starting line watching for fallen runners, or on the side of the track opposite the starter about 2-3 meters in front of the starting line, watching to warn runners to keep their toes off the starting line. A third recall starter can take the position not taken by the second recall starter (i.e., 40 meters out or on the line). If there is a fourth recall starter, that person is positioned on the line on the same side of the track as the starter.

In races where two alleys are being used, the starter should stand on the inside of the track a few meters beyond the level of the start line for the outer alley. If one recall starter is available, she should cover the regular start line, with the starter covering the outer alley start line. If two recall starters are available, one recaller is assigned to cover each start line.

Whether it is a race using starting blocks or a stand-up distance start, where you place yourself as a starter, and where the recall starters are placed, can vary a great deal, depending on the physical facility and the number of recall starters. What have been presented here are suggestions based on the most common placements. Where you place yourself and your recall starters is your choice; but, whatever you choose for placements, always make sure you take into account the two primary needs of keeping visual control of all the athletes on the starting line (preferably by the starter, but there will be many circumstances where the starter will have to depend on the recall starters viewing certain athletes in the starting field), and the important factor of equal sound carry of the starting gun, if using a live gun and particularly if FAT is being used.

### **Starter's Stance and Mannerisms**

The starter must be the primary calming influence at the starting line. Body language can be critical, and therefore you should always appear to be a person who is in control and enjoying your job. Your stance should be upright and comfortable, so all your concentration can be devoted to the runners at the starting line. Distracting mannerisms, such as unusual movements or voice commands, must be

avoided. There normally is enough tension at the starting line without a starter adding to it. Examples of distracting mannerisms include:

- Stern, rigid, loud vocal commands. (See next section)
- Pointing at the runners during the “On you marks” command.
- Nervous vocal noises such as constantly clearing the throat.
- One leg in front of the other, spread wide, and knees bent as if the starter is also getting into the blocks.
- Showing favoritism to certain runners by putting your arm around their shoulders, wishing them luck, etc. (This does not mean you cannot have brief friendly chats with runners during pre-race preparations; just avoid doing or saying anything that could be interpreted as showing favoritism.)
- Unusual vocal mannerisms. (See next section.)

## **Voice Commands**

The importance of the starter’s voice control cannot be emphasized too much. A calm voice is one of the most important characteristics of the successful starter. The starter’s voice commands should be practiced regularly, so the volume and tone are consistent from the beginning to the final set command. Again, calmness is the key. Avoid unusual mannerisms, such as long, drawn out commands; this can be very distracting to athletes. Keep the commands in a normal conversational cadence. The “Set” command should never be forcefully or sharply spoken, nor should it be long and drawn out. It can be quite disconcerting to the runners in the blocks to have a starter give the set command in a tone starting with a low ‘s’ and finishing with a high ‘t,’ or the opposite, a high ‘s’ to a low ‘t’. It should be a crisp, normal spoken command, just loud enough to be easily heard by the runner furthest from the starter. Yelling the “Set” command will always disrupt the atmosphere at the starting line. Care must be taken to maintain a calm, consistent intonation throughout the command cycle in order for all the competitors to hear and comfortably react. You might try using a tape recorder when practicing voice commands (or during a meet) to get an accurate idea of how you sound. If there seems to be confusion or problems at the starting line, it could well be due to the vocal commands of the starter.

If the meet will be long, with a lot of races, or if it will be taking place with a large, noisy crowd, it is a good idea for the starter to have a portable speaker system if there is no speaker system as part of the timing system. This helps a great deal in saving one’s voice at the end of a long day. The speaker system should be easily portable and provide a crisp, clear sound projecting over a wide area. Set the volume so it is just loud enough to be easily heard by the athlete furthest away. A hand-held electronic megaphone is one option, but a better option is speaker box with a hand-held microphone with a long cord. An even better option is the speaker box with a lapel microphone to clip to the shirt or jacket and a radio link to the speaker box. With this system you can place the speaker wherever you need to in order to most efficiently project to the athletes while leaving you free to place yourself wherever you need to be for the best visual control of the athletes and equidistant for gun sound-carry without being tied to a microphone cord. Remember to always carry spare batteries for your speaker system and radio link.

## Arm Signals

**Starter to finish line (and competitors).** The use of arm signals by the starter during the command cycle is primarily for the benefit of the timers at the finish line, so they know when to expect the gun to start the race. However, arm signals also can be of assistance when it is difficult for the runners to hear because of crowd noise or if there is a runner with a hearing impairment among the competitors, or in cases where there is a significant distance between the starter and the runners and a sound system is not available.

Prior to the start of every race, there must be communication between the starting line and the finish line, to ensure that everyone is ready for the start of the race. Ideally, there should be radios or walkie-talkies available to one member of the starter crew, the head timer, and the photo timer if one is being used. This greatly simplifies communications between these groups of officials. In the absence of radio communications, the head timer should have a red and a white flag. The starter gives a long blast on a whistle to indicate that the starting line is ready to begin the race, and the head timer responds with a white flag if the finish line is ready, or a red flag if the finish line is not yet ready (after checking with the photo timer crew if automatic timing is being used). Even if radio communications are available, it may be a good idea for the starter to use a long blast on the whistle before going into the command cycle, to let people in the infield and in the stands know that a race is about to start.

Before the start of every meet, the starter should meet with the finish line crew, to let them know what arm signals will be used during the command cycle. The high school rule book is silent on the issue of starter's arm signals. The USATF calls for the gun to be raised above the head no later than the "On your marks" command and held there until the gun is fired, and the non-gun arm to be held at the starter's side. In general, the less motion, the better. If you know you are working with an experienced timing crew, you can simply raise the gun to a vertical position just prior to the "On your marks" command and keep the other arm at your side throughout the whole command cycle. If you are using a sound system, you may have a microphone or loudspeaker in your other hand and won't be able to use it for signaling anyway. An alternative method that is useful when working with a less experienced timing crew, is to raise the gun arm to a horizontal position (or bent up 90° at the elbow) at the time of the "On your marks" command, and then raise the arm to the full vertical position just before the "Set" command, keeping the non-gun arm at your side (or holding a microphone). For distance races, simply raise the gun arm to a full vertical position just before giving the "On your marks" command and keep it there until the gun has been fired.

There may be occasions where a whistle signal should be used instead of voice commands to the runners, such as in a 3-turn stagger start (4x400 relay), or a 4-turn stagger start (4x200 relay), when no sound system is available. If whistle signals must be used, the athletes must be given specific instructions about the signals prior to the race. The simplest method is to use several short blasts on the whistle to signal the runners to stand behind their blocks. Then one long blast signals them to get "On your marks." When everyone is in their blocks and motionless, a short crisp blast on the whistle signals the "Set" command, and then the gun is fired. The arm signals used throughout the meet should be used in conjunction with the whistle commands. If there is a need to bring the runners up from their blocks (because of a disturbance, etc.), use several short blasts on the whistle.

For starting cross country races, the NCAA rule book has a specific procedure starters should use that is also noted in the high school rule book as an option for cross country races with large fields. The starter should have a red flag and a whistle in addition to the gun. The starter stands in the middle of the starting area at least 50 meters in front of the starting line. After giving instructions on how the



race will be started, the starter gives one blast on the whistle to call the runners to the starting line. With the gun in one hand and the red flag in the other, the starter holds both arms straight out to each side at shoulder level and holds that position until all runners are on the line and steady. Then the flag and the gun are raised slowly to the vertical position, and then the gun is fired while simultaneously pulling the flag down.

**Recall starters to starter.** Non-verbal communication between the recall starters and the starter is important during the command cycle. Two methods are most commonly used in which the recall starters let the starter know that they feel everyone is settled in their blocks and ready for the “Set” command. In the first method the recall starters stand with their non-gun hand held normally at their side after the “On your marks” command. When they feel the runners are ready for the “Set” command, they turn the palm of the non-gun hand out to face the starter. An alternative is to start with the palm open or out, and then turn it in toward the body when the runners are ready. In the second method the recall starters stand with their non-gun hand held out to the side, bent 90 degrees at the elbow, upon the “On your marks” command. Care should be taken to ensure the arm is held at an angle perpendicular to the line between the recall starter and the starter, in order for the arm to be readily visible to the starter. When the recall starter feels the runners are ready for the “Set” command, the non-gun arm is lowered to the side of the body.

Either method works well, and each starter crew should decide what they feel most comfortable using. The advantage of the first method is that it is less conspicuous. The advantage of the second method is that it is more readily visible to the starter in peripheral vision, so the starter does not have to be distracted by consciously looking at each recall starter for the signal. This can be particularly important in races with staggered starts. When there are two or more recall starters spread out over a wide area (for instance, with a three-turn stagger), instead of trying to spot all the recall starters, it may be helpful to the starter to key on the nearest recall starter for the ‘All is ready’ signal. Have that recall starter ‘on the point’ on the outside of the track with a better view observe the other recall starters and lower the arm or turn the hand only after all the others have.

**Relay races.** One additional area where the starter must be concerned with signals is the start of the 4x100 relay. Often it is difficult for the starter to see and know when the relay exchange zones are ready. It is recommended that before the meet the starter talk with the head umpire to arrange a simple signaling system. One umpire in each of the three exchange zones should be designated to raise a yellow flag while the athletes are getting prepared, and then raise a white flag when everyone is ready. The umpire in the second exchange zone should not raise a white flag until the white flag is seen in the third exchange zone, and likewise the umpire in the first exchange zone should not raise a white flag until a white flag is seen in the second exchange zone. The starter should key on the umpire in the first exchange zone, knowing that when that white flag goes up all zones are ready for the start of the race.

### **Reasons to Halt the Starting Process**

At any time during the cycle of starting commands, if either the starter or the recall starter feels it is not possible to produce a fair start or they are not satisfied that the start has been fair after the gun goes off, they may terminate the starting procedure. This is accomplished by calling the runners up from their blocks with a command of “Stand up” (or “Roll back” or “Wheel back” in the case of wheelchair athletes), or recalling them with a second shot from the gun. If there has been any condition or circumstance at the starting line that could be a distraction to the athletes, it is the responsibility of the starting crew to abort the start and correct the situation, so all competitors have a fair and equitable

start. If there is any doubt that everything is not right, it is better to bring the runners up and start again, rather than hope the situation “really was not that much of a problem”. The starter must always be in control and anticipate problems. If a noisy crowd is close to the starting line, ask that they help you out during the starting commands (e.g., “Please don’t snap the shutter on the camera during the “Set” command”, “Please don’t kick the fence”, “Please remain quiet”). If you are courteous to the spectators, usually they will respond in kind.

**Sprint races.** The following are examples of situations that could cause the starter or recall starter to bring the runners up out of their blocks or call them back after a sprint start.

- 1) *Runner's request.* At any time from the “On your marks” command until the gun goes off, a runner may halt the start of a race by raising a hand to request a delay. This can be done for any of several reasons; e.g., the blocks not being properly adjusted, dirt or dust blown in an eye, or crowd noise. But this should be for a legitimate reason. If the starter feels the athlete has halted the process for no legitimate reason, or to play “mind games” with the other competitors, the starter may give a yellow card warning or a verbal warning to the athlete that a repetition of that act will result in a disqualification (the starter in high school meets has this authority since she usually is also the meet referee). This yellow card or verbal warning is to the individual athlete for improper conduct and has no relation to false starts. It also should be noted that the athlete is not allowed to briefly raise the hand and then run out of the blocks. Technically, this can be considered a false start and could be charged as such. The athlete should raise a hand and wait for the command from the starter for everyone to come up.
- 2) *Crowd control.* If the starter feels there is enough noise from nearby spectators that it will distract the runners, or someone is playing a radio too loud, the command cycle should be halted until the situation can be corrected. Again, a courteous request to the spectators is generally all that is needed. On occasion the starter may have to delay a start to wait for the crowd to stop their rhythmic clapping for a field event competitor. In such cases, be patient; it should only take a few seconds, and it is better to delay those few seconds than to risk an unnecessary false start because of crowd noise.
- 3) *Starting block problems.* Some starting blocks used by schools can be difficult to set, especially for young, inexperienced runners. Be patient, but firm in urging quick setting of the blocks, especially if there are many preliminary races to be run. The recall starters should be prepared to step in quickly to help the younger, inexperienced runners in these cases.
- 4) *Fingers on the line.* If an athlete has settled into the blocks with his or her fingers beyond the nearer edge of the starting line (i.e., the fingers are on the white line), the athletes should be brought up and the offending athlete advised to properly place the fingers behind the starting line. Usually a recall starter is in the best position to see this. If this is noticed early enough, the recall starter can quietly advise the athlete to move the fingers back, but if the “Set” command is imminent it is best to bring all the athletes up and then correct the problem (preventive officiating). These are problems that sometimes can be prevented by recall starters carefully observing athletes before the race during warm-ups at the start line. If an athlete is seen settling into his marks position with the fingers on the line, the recaller can step in and remind the athlete to keep fingers behind the start line. (HS rules do not require the athlete to have feet in contact with the blocks.)
- 5) *Obstructions on the track.* Once in a while someone not paying attention will wander onto the track, or a piece of waste paper may blow onto the track in front of a runner, just as the “Set” command is about to be given. A runner may notice and raise a hand, or a recall starter may see it through peripheral vision.
- 6) *Slow athlete.* Occasionally an athlete will be slow in getting the warm-up clothing off, or take too long in getting settled into the blocks. During cold or rainy weather athletes may wear several layers of warm-ups, so a special effort should be made to ensure removing them does not delay

everyone. The starter can help forestall this problem by telling them to get their sweats off a little earlier than normal in such weather. Once the “On your marks” command is given, there is no specified amount of time before the “Set” command. It will vary, and the starter must be somewhat intuitive in feeling when it is the right time to give the “Set” command and when it is taking too long and the runners should be called up.

Often sprinters and hurdlers have their own special routines they go through as they get settled into the blocks, and sometimes these rituals are still being performed while everyone else is ready in the blocks. If one or two athletes are holding everyone else up, call them all up and caution the individual(s) causing the delay. In cases where this seems to have been a blatantly purposeful act, the starter/referee can issue a yellow card warning or a verbal warning for improper conduct to the individual. If an athlete persists in delaying everyone after such a warning, the starter/referee can disqualify the individual.

- 7) *Meet-oriented problems.* Even if the starter has spoken with the announcer prior to the meet about not talking while the runners are in their blocks, occasionally the announcer will begin an announcement just before or just after the “Set” command. The runners should be brought up immediately, and the starting sequence begun again. Other problems include things like the finish line not being ready, the photo timer not being ready, or an athlete being in the wrong lane. Any number of situations such as these may cause a delay, and this is a time when the calm demeanor of the starter is important.
- 8) *Wrong starting line.* Although it is becoming increasingly rare, you may come across an older track that has not yet been rebuilt to 400 meters, and there may exist two sets of starting lines for each race, one for metric races and one for races in yards. This sometimes can cause confusion when lining athletes up for the start of a race, particularly races with staggered starts. For this reason, the starter should always go over the track prior the meet to make sure the correct location of each start is identified and the color code of the line used for each distance is known. For races with staggered starts, the recall starter looking up or down the line of runners should be able to see if one runner happens to be placed on a wrong starting line, because that individual will be clearly “out of line” with the other runners.
- 9) *Inclement weather, outside noises.* Weather sometimes can cause a delay if there is a sudden downpour. If there is lightning in the vicinity, it is wise to delay until the storm front has passed, especially if a longer race is about to start. (See <https://www.weather.gov/safety/lightning> for useful information on lightning safety.) At the high school level, normally the meet starter/referee, in cooperation with any medical staff present, will be responsible for monitoring lightning and use of lightning detectors, and making decisions on meet delays and resumption. (NFHS policies require a 30 minute delay whenever lightning is observed in the vicinity.) Outside uncontrollable noises may sometimes occur, such as a low-flying airplane, a nearby locomotive that decides to blow a whistle just at the “Set” command, or a clock tolling the hour. In all such cases it is best to bring the runners up and wait for the disturbance to pass.
- 10) *Slow roll-up.* During the pre-race instructions (whether given by the starter or the clerk), the athletes should be told that upon the “Set” command they are to come up immediately to the full and final set position without any hesitation or slow roll-up. If a slow roll-up does occur, the runners should all be called up immediately and the individual cautioned. After being warned, continued failure to “attain a full and final starting position at once and without delay” is grounds for the starter/referee to disqualify the individual (even if it’s in a later race).

Another related action to watch for is the buttocks slowly settling or drifting down after reaching the peak ‘set’ position. While a brief ‘settle’ is not uncommon among many sprinters and generally is not a problem, the starter and recall starters should watch for any delayed or lengthy downward movement. This could be an alternative way to attempt to ‘roll’ into a start, and it could be distracting to competitors on either side to the point of causing them to false start. If this

movement is seen, the athletes should be called up and the offending athlete verbally warned. The athlete can be disqualified by the starter/referee if the athlete persists in this action after being warned.

The slow roll-up or the slowly responding athlete also are problems that potentially can be prevented by careful observation of the athletes by the starter and the recall starters during warm-ups at the start line before the race. If an inordinately slow rise to the set position is observed, or a long, slow settling after reaching the peak height, the recall starter can step in and advise the athlete that they must respond quickly to the starter's commands and come quickly to the set position and then remain still until the gun is fired. This type of pro-active preventive officiating has been found to forestall many instances of these types of problems and the delays they cause at the start of a race.

- 11) *Bad shell/misfire*. If the gun malfunctions, or a shell is a dud, the runners should immediately be called up and the problem corrected, then the runners called to their marks again. Although it may be hard to admit, it has been known that a misfire was due to the starter forgetting to load (or reload) the gun. This is one of those embarrassing situations that hopefully happens only once in a career. It is highly recommended that the starter replace the spent shell after each start, ensuring the gun always has a full load of good shells.
- 12) *Flinch or buck*. During the momentary hold at the peak of the set position, a runner may 'flinch' or 'buck' yet not break contact with the ground with the hands or break contact with the blocks. This action will cause the runner to move slightly forward or upward and then slightly back. If the gun is fired in the middle of this flinching action, the other runners are going forward while this runner is still going back. In such a case you are faced with a dilemma. You could let the race go on, based on the viewpoint that the athlete who flinched 'dug his own hole' (a somewhat questionable philosophy if you are supposed to be there to ensure everyone gets a fair start). While this athlete was moving, he certainly was not gaining any advantage because he was moving back when the gun fired, and you could interpret this as an unfair start and call the runners back with no penalty other than a verbal warning to the runner who flinched. On the other hand, there also is a valid point of view that holds that recalling and starting again allows this individual to correct their mistake while in some sense penalizing all those who had a fair start and now possibly have lost concentration because of the recall.

How to handle this situation in any given case may depend on how extreme the flinch was, and whether or not it could be considered an unquestionable full commencement of the starting motion. There are valid pro and con arguments for either of these responses to a flinch or buck, and which response is chosen in a given situation will always be a subjective decision on the part of the starter.

However, if the runner who flinches draws a runner in an immediately adjacent lane into a false start, the runner who false started should not be charged and the runner who flinched may be charged with improper or unsporting conduct by the starter/referee.

If the flinch occurs early in the pause between the "Set" command and the gun, it may be possible for the starter to 'wait it out' and let everyone stabilize before the gun is fired. If the flinch occurs late in the pause before the gun, or if more than one runner flinches, the starter (or the recall starter) should call everyone up, calm the athletes down, and start the command cycle again. This is basic preventive officiating, giving the athletes the benefit of the doubt, and it is the action all starters are encouraged to take in these situations.

Given the explosive atmosphere at the start, there occasionally will be movements of this type, and the starter crew must be prepared to handle these instantaneous situations. If a race is called back because of a flinch or a false start caused by a flinch, the starter should briefly confer with the recall starters to get input from other pairs of eyes and make sure there is reasonable consensus on exactly what happened before making the call.

13) *Slipped blocks.* Watching for slipped blocks is one of the key responsibilities of the recall starters. The two primary ways of immediately detecting slipped blocks are by the clattering sound they make when they slip, or by noting a runner stumbling or seeming to hesitate awkwardly when coming out of the blocks. If a recall starter is assigned to watch from behind the starting line, the backward movement of the blocks can be seen directly. Often it can be seen that a pair of blocks is positioned considerably further back compared with the others, after the runners have left their marks. This is another major clue for recall starters to look for to determine whether or not blocks have slipped. When this occurs, try to determine the cause and see if any corrective action is possible. Often block slippage is caused by worn or missing spikes on the bottom of the blocks, or worn track surfaces. Sometimes when an athlete places a toe on the track with the two front spikes just in front of the bottom of the pedal, upon starting the spikes will lift the pedal causing the block spikes to lose contact with the track surface.

When slipped blocks are detected, the race should be recalled immediately. The runner involved should then be given time to readjust the blocks and all runners given time to refocus on the start, and the command cycle started again. Blocks that have wing nuts, or other mechanisms requiring hand tightening, must be watched closely. If slipping continues, the recall starter should have someone hold the blocks during the start. Block holders should always be seated on the track surface, not standing, and should not place their feet on the backs of the pedals. Always caution block holders to stand back until the runner gets into the blocks, since some runners will kick backwards as they are getting into the blocks and could spike someone standing too close.

14) *Stumble.* If a competitor comes out of the blocks awkwardly and stumbles during the first or second step, the race should immediately be recalled, since this should be considered an unfair start. This might occur because the blocks slipped or because the athlete caught a spike on the track surface. At the instant it occurs you cannot be sure why it happened, but if there is any chance it was because the blocks slipped you should immediately recall because of an unfair start, giving the benefit of the doubt to the athlete. If the stumble occurs after the second step, the race should not be recalled, since the runner will have established a stride pattern at that point and is in a more upright position.

15) *Practice starts.* It is a good practice, if you see an athlete preparing to take a practice start in your or your recall starters' field of view, to ask the athlete to move out of your field of view so there will be no possibility of the athlete's movements distracting you or your recall starters or being mistaken for a false start movement.

**Distance races.** The following are examples of situations where the start should be halted or the runners recalled during the start of a distance race.

1) *Runners not steady.* If the runners are not steady or still after coming up to the starting line, they should be brought up and reminded to stay still on the line until the gun is fired. The start also should be halted if a runner is off balance and is falling forward, or a runner has his fingers on the ground (i.e., a standing start is just that; the runner cannot be in a three- or four-point stance). In these situations the runners should be brought up off their marks by the command "Stand up," given a quick explanation, and set back three meters for another walk up start.

2) *Toes on the line.* When the runners come to the line in a walk up start, if one or more runners have a toe on or over the line, the runners should be brought up and reminded to keep their toes behind the starting line, and then set back for another walk up start. Again, this is basic preventive officiating. If one or two recall starters are assigned on the starting line, an option is to have the recall starter(s) move quickly down the line checking toes and verbally instructing any runners with their toes on the line to move them back. Of course, the starter has to wait for the recall starter(s) to clear the line and be in their assigned position before firing the gun.

- 3) *Fall during the first 100 meters.* In high school, if a runner falls because of contact with another runner anywhere during the first 100 meters of a distance race, the race should be recalled, the runners given a chance to catch their breath and refocus, and then set up for another walk up start. If a runner goes down without contact with another runner, or because of stepping on the inside rail (without being pushed by another runner), the race should not be recalled.
- 4) *Stumble.* If a runner stumbles or slips on the first step or two, the race should be recalled as an unfair start, and started again. This situation may occur on a wet track.

In all cases, for both sprint starts and for distance starts, the best ‘rule of thumb’ is common sense. If the starter or the recall starter feels someone is at a disadvantage, the race should be recalled or the start halted. If there is any doubt, start the race again. Just because a recall gun has been fired, this does not automatically mean someone has to be charged with a false start or disqualified.

### **Pulling the Trigger** (This is a critical section for you to understand and apply)

Pulling the trigger to start the race is the *sine qua non* of the starter’s trade. The starter should be very familiar with his or her gun, and know the feel of it and how much slack is in the trigger. It should feel comfortable in the hand, and have a fairly tight trigger. A ‘hair trigger’ or sensitive trigger should be avoided in order to prevent firing a ‘fast gun’ after the “Set” command. During the command cycle, the gun should be cocked just before the “On your marks” command is given. The finger should be closed around the trigger, taking out any slack, just before the “Set” command is given. At this point the gun may be fired, or the pressure may be let up on the trigger if the runners must be called up off their marks. If the gun has a hair trigger, this is not as easy to do, because it is harder to let up pressure on the trigger without firing. If for any reason the gun fires before you intend it to, you should recall the race. The starter should avoid jerking the trigger when firing, because the hand moves and this can be distracting to the timers. It also provides a visual cue to any runners who might happen to be watching the gun. The gun hand should be held still and solid throughout the command cycle until after the gun has fired and the runners are away.

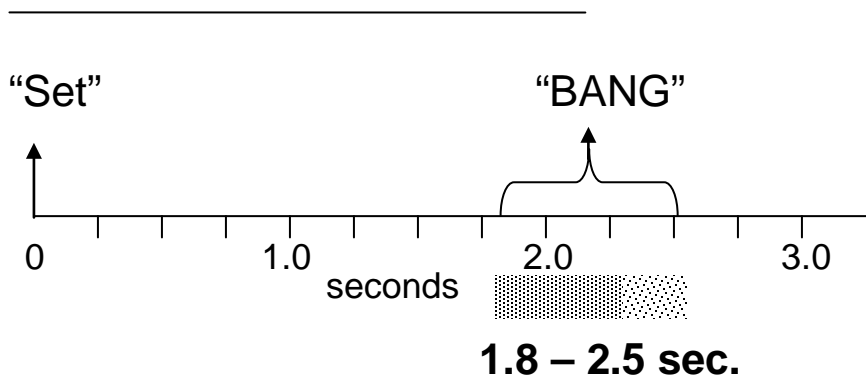
While starters (and recall starters) need to maintain focus throughout the command cycle, it is particularly important during the ‘hold’. This is not the time for letting the mind wander to stray thoughts about the last race, the next race, or what you are going to have for dinner tonight. The entire focus must be on the athletes on the start line and their activity during the hold.

The ‘hold’ is the length of time between the initiation of the “Set” command and the firing of the gun for races started out of blocks. ***Any hold of less than 1.5 seconds does not allow the athletes sufficient time to get into the set position.*** (While the high school rule book says the hold is “usually one to two seconds”, ignore that; this is a case where the NFHS rule book is clearly wrong.) There are two activities that require sufficient time to properly occur between the “Set” command and the firing of the gun. First, the starter needs to ensure that all the competitors have come to a full and complete set position, and have stabilized or are still. Following the “Set” command the gun shall be fired *after* the starter has ascertained that all competitors are ‘set’ (or are steady in the ‘set’ position). Further, the starter should not fire while any competitor is in motion after the command ‘set’, when appropriate, nor before the starter has ascertained that each competitor is steady. All this requires a finite amount of time to do properly, usually a *minimum* of 1.5 seconds to ensure that the athlete taking the most time in the field of runners is steady.

Second, consider what the athletes must do in sequence: They must hear and recognize the “Set” command, respond to it by directing the body to begin rising to the set position, sense when the body has reached the correct position, stop body movement, make any final readjustments (many sprinters have a tendency to ‘settle’ slightly after reaching their top position, and you must wait for that settling to be completed), start applying constant pressure to the starting blocks, and then focus on listening for the gun and concentrating on the explosive reaction to the sound of the gun. While this becomes an almost automatic sequence with experience, this still takes a finite amount of time to complete for both the novice and the most experienced competitor. Even with elite athletes, the amount of time this process takes can vary considerably within any group of athletes at the starting line. ***If the gun goes off with less than 1.5 seconds of hold time, there is an extremely high probability that at least one runner has not had sufficient time to complete this process, and the starter has created a disadvantage for someone by firing a quick gun.***

The starter crew at Hayward Field in Eugene, Oregon, in the 1980s and 1990s worked together for many years doing a large number of national and international meets, and through our experience we came to a consensus that a good hold time will range from 1.8 to 2.4 or 2.5 seconds (see Figure 6). It is adequate to give the starter the time to view the field and adequate to give the athletes the time to get settled in the set position and refocus on reacting to the gun. This is what we strongly recommend during the starter clinics we have been giving for many years. For the short sprints and hurdles, the hold time normally will average near the lower end of that range. For the longer sprints with a staggered start, it will average near the longer end of the range in order to give the starter a little more time to scan the runners spread out on the staggered starting positions. As noted in the last section, if you have to wait for an athlete who is slow in responding or reaching a stable set position, once you have gone beyond 2.5 seconds you should be ready to call the runners up. (It also should be noted that in some major international championship meets starters have been known to hold the runners for 3 to 3.5 seconds in order to be certain that all runners are still at the start.) A slightly longer hold is not unfair to the runners; they will adjust quite readily. Many top level athletes have specifically noted that they appreciate having enough time to get focused after the “Set” command, and have stated they would rather have enough time to get settled and reach their peak concentration than have a quick gun.

Figure 6: The “Hold”



Every race will vary with regard to how long it takes for all competitors to become still and motionless, and therefore the length of the hold time will vary with every race, but still should be within the reasonable range noted above. A starter should never get in the habit of firing the gun at the exact same length of time after the “Set” command. Athletes will pick up on this very quickly, and it is a good recipe for having runners anticipate the gun. On rare occasions all of the runners in the field will come up immediately and together, being stabilized right away. In a case like this, there is no

reason to hold them if everyone is stable, and the gun can be fired at less than 1.8 seconds; but this does not happen very often. Most of the time the starter has to watch for the athlete who is slow to react to the “Set” command, and not fire until this last athlete is clearly still. And also be watching for the athlete who comes up to a peak set position, pauses, and then starts to slowly settle. The starter must wait and not pull the trigger until the last of these athletes are still. Of course, in either of these situations if it is taking too long for the athlete to become still, the starter should call the field up and warn the athlete(s) causing the delay.

In races where the starter is viewing a staggered start (e.g., 200M, 400M) from the infield (i.e., when at least one recall starter is in position to provide additional coverage of the athletes), it is suggested that the starter scan the field, quickly viewing each athlete beginning with lane 1 and proceeding out to lane 8, or 8 to 1. This allows the starter to confirm that the whole field has heard and is reacting to the “Set” command (not that they are in the ‘set’ position), and normally it takes about two seconds to complete this scan. If there is one recaller located inside near lane 1, as in Figure 2, the starter can focus on the outer lanes after scanning from lane 1 to lane 8. If the one recaller is on the outside beyond lane 8, the starter can focus on the inner lanes after scanning from lane 8 to lane 1. If there are two recallers, the starter can focus on the middle lanes after completing the scan in either direction.

It is a good idea for the starter to practice the voice commands regularly, at home in front of a mirror, or anywhere where others will not be disturbed. Use a stopwatch to time yourself from the beginning of the “Set” command until you ‘pull the trigger’ by punching the button on the stopwatch. It also is a good practice to have someone time your hold intervals between the beginning of the “Set” command and the gun during meets. This is excellent immediate feedback under real conditions. (When timing the ‘hold’ on a live race, start the stopwatch at the very beginning of the word “Set”. Do not wait until the word “Set” is completed to start the watch; doing so will shorten the apparent hold time measured.) At Hayward Field we did this on a regular basis among ourselves on the starter crew, particularly at the beginning of a new season, to make sure we all were in the proper range for the hold time.

Developing trust between the starter and the competitors is very important. If, at the time of the instructions, the runners are told they will not get a quick gun and will be given time to get set, then that should be the case. To tell the athletes this and then fire a quick gun will very quickly break that trust, and the result generally is confusion and frustration at the starting line.

### **False Starts - What to Look for and How to Handle Them**

Under the rules at all levels of track and field competition, no false starts are allowed; i.e., anyone who false starts (moves into their starting motion with or before the gun) will be disqualified from the race. A starter who has given adequate instructions to the athletes, gained their trust, and maintained a calm atmosphere at the starting line normally will have few problems with false starts, especially when the “no false start” rule is in effect as it is in high school races. Nevertheless, every time a race is started the starter and recall starters must be alert and fully prepared to immediately respond to a false start.

The USATF and NCAA rule books now all state that, after assuming a full and final set position, an athlete is only allowed to *commence* his starting motion *after* the report of the gun or approved starting apparatus. (USATF rules now more precisely state that competitors may not *commence the start* until after *receiving* the report of the pistol/starting device.) If the starting motion is commenced



prior to (or less than 0.100 second after) the sound of the gun, it is considered a false start. The high school rule book does not define a false start this clearly, but the intent is the same. These rule clarifications finally settled a difference of opinion that had existed for many years. The old rule wording appeared to allow an athlete to internally commence the starting motion before the sound of the gun (i.e., try to outguess the starter and get a 'flyer') as long as there was no detectable motion before the sound of the gun; so if the athlete moved exactly with the gun it was felt to be a fair start. This was the opinion of a number of athletes, coaches and even some starters. Now, with the more precise rule wording, the intent is clear: the runner is not allowed to commence starting until after receiving the starting signal (i.e., the runner must *react* to the gun, not anticipate it).

A runner who begins movement out of the starting blocks before the sound of the gun normally will move the back foot and leg first, along with the opposite hand and arm. Unless there are enough recall starters to assign at least one to watching for slipped blocks, the starter and recall starters will have to key on the arm and hand movement, since it will be more difficult for them to see movement from the legs. Upon seeing any movement out of the blocks on the part of a runner before (or with) the sound of the gun, the starter or the recall starters should give the "Stand up" command if the gun has not yet fired, or fire a recall shot if the starter's gun has fired. Be aware, too, of situations like 'flinches' or 'bucks', or other extraneous factors (see the previous section on reasons to halt the starting process). The starter or recall starters stationed more to the side of the runners are in a better position to see hand movement and rolling starts, although it is a little more difficult to see the runner who is slow coming to the set position. On the other hand, the starter or recall starter in a position further in front of the line is in a better position to see the runner who is slow coming to the set position, but it is a little more difficult to see the runner moving forward at the gun. With the combination of proper starter and recall starter positions, there usually is little opportunity for an athlete to succeed in making an unfair start.

It should be pointed out here that the recall starter should never have the gun cocked at the start of a race, and should hold the trigger finger outside of the trigger housing. If the trigger finger is on the trigger, there is a natural tendency for the recall starter to squeeze the trigger at the sound of the starter's gun, or even before the starter's gun fires, resulting in an unnecessary recall. This can be highly embarrassing and, like forgetting to load the gun, is hopefully something that happens only once in a career. With a little practice, one can quickly become accustomed to getting the finger on the trigger and firing the recall shot within the first 2-3 strides of the race.

Upon calling the runners up or firing a recall gun, the starter should confer briefly with the recall starters to get their observations on what happened and who, if anyone, should be charged. Even when it is very obvious who or what caused the recall, there should at least be brief visual communication among the starter and recall starters to ensure agreement. If a recall starter has seen or heard something that the starter apparently has missed, this should be noted immediately, since it could have an impact on the starter's decision. And the final decision is always the starter's alone.

If an athlete is to be charged with a false start, it is the starter's responsibility to notify that athlete. Keep in mind there are many situations where there has been movement, but the runner does not have to be charged (e.g., extraneous noises, an adjacent runner flinching or bucking). Again, a competitor does not necessarily need to be charged with a false start every time there is a recall.

After a recall for any reason, a good starter will avoid the tendency to fire a faster gun on the second start. This is a common failing, and the starter should consciously and scrupulously adhere to the normal pattern of hold times. For any starter, the fastest starts (i.e., the shortest hold times) tend to

be the first start of the day and any start after a false start. There should be a conscious effort to avoid a quick gun in both situations.

In distance races, when an athlete steps over the line before the gun it normally is because of losing balance or being jostled, and not because of intent to get an advantage, and therefore the athlete should not be penalized with disqualification. The athletes should be called up (or recalled) and reset to begin the command cycle again, with your decision being that the start was 'unsteady'. The no false start rule should be applied rigorously only to races using starting blocks. But if an athlete breaks out hard from the line before the gun is fired, then the runners should be called up (or recalled) and that athlete should be charged with a false start. And if you observe an athlete step over the line before the gun because of being deliberately pushed, the athlete doing the pushing can be subject to unsporting conduct warning, or disqualification if it was flagrant.

## **Starters' Uniform**

In Michigan, the MHSAA requires high school starters to wear the proper uniform while officiating track and field meets, which consists of a red shirt or jacket, with the MHSAA registered officials patch on the left chest, and tan/khaki slacks, shorts or skirt. A yellow arm sleeve is required on the gun arm of the person starting the race. A red cap is optional (however, in spite of this stated option, you would be wise to wear a broad brimmed hat on sunny days).

## **Ear Protection**

It is highly recommended that the starter protect the ears from the sound of the gun blast while using a live gun. Race after race, meet after meet, year after year, firing the starting gun will take its toll on the auditory nerves of the ear, eventually creating hearing loss, starting in the high frequency range. Good earplugs are highly recommended, rather than cotton or inexpensive earplugs. They should be used in both ears, not just the ear closest to the gun. A good earplug should be comfortable in the ear and allow hearing normal conversation. They should not block out all sound, since it is important that the starter be able to hear noises that may distract the athletes during the start. Some starters use the earmuff or headphone type of ear protection often seen on target ranges. This is a reasonable alternative, as long as the individual does not have to wear radio headphones for communication purposes during the meet. When wearing radio headphones, earplugs still should be worn, since radio headphones are not designed to give sufficient noise protection to the ears.

While the rules call for a .22 cal. or .32 cal. closed barrel pistol to be used for starting races, an alternative is one of the new electronic starting pistols recently coming on the market. These electronic starting pistols eliminate the hassle of dealing with 'zero tolerance' gun policies on high school campuses. The prices of these e-guns have been dropping, so it is entirely possible that in the not too distant future the traditional starter pistol with black powder shells will be a thing of the past, and we will all be using electronic pistols. The initial cost of the electronic gun is now about equivalent to a good closed barrel starter pistol, and the electronic gun has the advantages of not requiring the continual purchase of increasingly expensive black powder shells, not requiring the process of cleaning the pistol after each meet, eliminating the risks of 'dud' shells and forgetting to reload. The only additional expense is one or two good quality speakers for the e-gun to produce the starting sound. And since the sound from the speakers is directed away from the starter, the risk of long-term hearing loss is essentially eliminated.

## **Moving Equipment**

Often the starter is not only in charge of starting races and being the meet referee, but must be responsible for moving the starting blocks from one starting line to another, helping move and set up hurdles, and helping the clerk. This is particularly true in high school dual meets and junior high meets. Still, these are all part of the job. However, at higher levels of competition and as the meets get larger, these extra jobs should and will be assumed by other individuals.

## **Care of the Starter Pistol**

A good starter pistol should last a lifetime if properly cared for. It should be thoroughly cleaned as soon as possible after each use, using the materials and instructions found in a good commercially available gun cleaning kit. This eliminates the build-up of gunpowder, carbon and other materials that can lead to gumming up or freezing the mechanisms of the pistol. It is especially important to clean the gun after a meet where it has rained. Rust is another primary enemy that can ruin a pistol. The proper and consistent use of a good gun oil and cleaning kit will help prolong the life of a starter pistol and help maintain its reliability. (This is a concern/task that will disappear as electronic starting pistols come into more common use, along with the necessity and expense of buying blank shells.)

## **Safety**

Safety precautions are not something starters are usually as concerned about, compared with other officials such as those doing the throwing events. However, the starter must still be aware of things like looking to make sure a runner is not headed on a collision course when stepping onto the track. Better yet, develop the habit of crossing the track behind the starting blocks when sprinters and hurdlers are warming up. When helping to set hurdles on the track, always check in both directions before moving anywhere after setting a hurdle. There always is the risk of a hurdler taking a practice run in the lane next to you. If you must be on the track for any reason, try to stand on a lane line to reduce the risk of a full on impact by an athlete taking a practice start. If the location of a starting line requires the starter to be near an area where errant throwing implements could land, try to ensure there is a marshal or someone else in the area to act as an extra pair of eyes and warn the starter crew if necessary.

Another safety concern to keep in mind is sun protection. While baseball caps have been the common outdoor headgear for starters, it would be wise to consider the use of a wide brimmed hat to help protect the face, neck and ears from the many hours of direct sun that starters often are subjected to during outdoor meets. Along with liberal use of a high SPF sun block on all parts of the head, neck, arms and hands, this will help protect you from the long-term consequences of sun exposure.

## **Traveling with Your Starter Pistol**

When traveling to and from meets, it goes without saying that your starter pistol, even if it's a closed barrel pistol, should be kept (unloaded!) in a case and locked in your car trunk (not in the glove box or the console). If your vehicle does not have a trunk, you will need to carry your pistol in a hard case that is locked. It can lead to some touchy situations if you happen to be stopped by the police with a pistol lying on your car seat or in a holster on your belt.

## **In Conclusion**

Being a starter or a recall starter is a major responsibility in a track meet, and you can have a positive or a negative impact on the satisfaction and enjoyment an athlete will have in participating in the sport, depending on how well you do your job. This document has attempted to present information on the major aspects of the mechanics and techniques of being a good starter. Practice the skills discussed here, observe other starters, take the time to practice voice commands and use a stopwatch to time your holds, stand in front of a mirror to observe your body language and arm signals. These will help with your mechanics. However, it still boils down to knowing the rules and using common sense in applying them. Again, all your actions and decisions should be focused on the good of all the athletes, the basic principle being to ensure that no athlete gains an unfair advantage over the other competitors, and no athlete has to compete under an unfair disadvantage.

The remaining sections of this document include a list of equipment that a starter should have for a meet, and checklists of responsibilities for the starter and the recall starter.

## APPENDICES

### STARTER'S EQUIPMENT – “What's in the bag?”

The following is a list of suggested equipment for starters (carried in an athletic bag):

.32 caliber pistol (a .22 caliber pistol may be used for indoor meets) (High school and NCAA rules now allow a .22 caliber pistol to be used in outdoor meets if FAT is being used.)

Sufficient black powder bland shells to start the entire meet (plus recalls); generally try to ensure meet management will supply all shells, but keep enough in your bag just in case.

Gun cleaning kit. Care should always be taken to clean the gun immediately following a meet.

Metal whistle on a lanyard (keep a spare handy)

Lap counting cards

Bell for signaling the last lap of distance races

Complete set of raingear, plus goulashes

Bottle of sun block

Sunglasses

Earplugs (and a spare set) or ‘ earmuff’ ear protection device

Red blazer or red sweater

Bright fluorescent arm sleeve

Comfortable shoes

Hat, red ball cap (or preferably a wide brimmed hat)

Small plastic bags (handy to help keep gun dry on wet days)

Extra baton

Current rule books

Pencil and paper or 3x5 cards

Safety pins

Extra black powder shells

Hand towel

Piece of sidewalk chalk in a baggie (to mark a 3 meter walk-up line on tracks that do not have these marked for distance races)

Extra track spikes and spike wrench

Roll of athletic tape and/or a roll of white duct tape

Small knife and/or scissors

Watch and/or stopwatch

Hand-held loudspeaker or speaker system, with spare batteries

Clean handkerchief and clean saline solution for contact lenses

## CHECKLIST FOR STARTERS

The following are checklists for head starters and recall starters covering their major responsibilities:

### Head Starter

- \_\_\_ Arrive an hour before the meet is to start.
- \_\_\_ Look over the facility - study the color codes for the starting lines; 1-turn, 2-turn and 3-turn staggers; break points, etc.
- \_\_\_ Anticipate problems - improper markings, no batons, lap counters, starting blocks, etc.
- \_\_\_ Obtain time schedule from Meet Director or Clerk of Course.
- \_\_\_ Synchronize watch with Meet Director and/or Head Timer.
- \_\_\_ Discuss hand and arm signals to be used with finish line personnel and announcer.
- \_\_\_ Check for obstructions between starter's positions and timers.
- \_\_\_ From the 200 M start, is the background too light so that the timers cannot see the smoke? (May need to adjust the starter's position.)
- \_\_\_ Check blocks and hurdles. Are they correct? Does the starter crew have to move them, or are there helpers?
- \_\_\_ If a sound system is to be used for staggered starts, check to make sure all speakers are working and it can be heard easily from each lane.
- \_\_\_ Establish starter and recall starter positions for straight and staggered races.
- \_\_\_ Determine how the 'all is ready' signal will be received from each exchange zone before the start of the 4x100 relay.
- \_\_\_ If a fully-automatic timing system is being used, check out the system with the operator (i.e., check that the sensor is operating correctly at each starting line).
- \_\_\_ Discuss duties and responsibilities with the recall starter(s).
- \_\_\_ Pick up shells from host coach (if the host school is providing them). Always check to make sure the shells are black powder, not smokeless.
- \_\_\_ Do not discard used shells in the track area. Keep them on your person until you can properly dispose of them.
- \_\_\_ If using headphones to communicate with the finish line and photo timer, check to make sure they are operating correctly.

## Recall Starter

- \_\_\_ Arrive early with the head starter before the meet.
- \_\_\_ Look over the facility and study the color codes for the starting lines, etc.
- \_\_\_ Discuss with the head starter the conduct and signals to be used during the meet.
- \_\_\_ Obtain the time schedule for the meet.
- \_\_\_ Identify the positions the head starter wishes the recall starters to use.
- \_\_\_ Assist at the starting line with starting blocks, answering questions, checking equipment such as batons, numbers, etc.
- \_\_\_ During the start of a race, never have finger on the trigger and never have the gun cocked.
- \_\_\_ For sprint races, when runners are in their blocks, quickly check hands and see if there are any problems. If you spot a problem, quickly notify the starter to call the runners up.
- \_\_\_ For distance races, if you are on the line, quickly check to see that toes are behind the line. Call the runners up and reset them if there is a problem.
- \_\_\_ Be especially alert for such things as outside noises that could cause a break at the "Set" command, or for blocks slipping or a stumble on the first stride.
- \_\_\_ On a staggered start, whether in the front or the back, use an appropriate signal to the starter when 'all is ready', or notify him if there is a problem.
- \_\_\_ If a photo timer is being used with hard-wire cables, help moving the cables.
- \_\_\_ Have either a .22 or a .32 caliber pistol available for recalling.
- \_\_\_ Establish whether or not the recall starter is responsible for firing a gun or ringing a bell to signal the 'gun lap' on distance races.





**- About the Author -**



**Eric D. Zemper, PhD, FACS M**

Dr. Zemper has been involved with the sport of athletics, or track and field, for 65 years as an athlete, coach and official. He has been an official for 55 years, and a Master level official in the USA since 1981. Soon after becoming an official he became a starter, and that has been his primary role as an official for five decades, including fifteen years on the starter crew at Hayward Field in Eugene, Oregon. He has been a starter or chief starter for over two dozen US national championships at the youth, university, open and Masters levels, and has been on the starter crew for over 30 IAAF Grand Prix / Diamond League competitions. Dr. Zemper has for many years been an instructor for training clinics for track and field officials and for starters. In 1999 he was selected as an IAAF Area Technical Official, and from 2005 through 2017 he was appointed as an IAAF International Technical Official (ITO), one of 45 in the world. He also was an International Technical Official for World Para Athletics, and edits the section of rules for athletes with disabilities in the USA Track & Field rule book. Dr. Zemper was selected to work as a track official for both the 1984 and 1996 Olympic Games, has worked as an official at six IAAF world indoor or outdoor championships, was appointed to the ITO crew for the 2012 Olympic Games in London, and was appointed as an ITO for the 2017 IAAF World Championships in London, where he served as the Start Referee. In 2007 he was one of nine international starters invited to be on a panel to create the USA Track & Field *Starters Case Book*. In 2014 he was inducted into the USA Track and Field Officials Hall of Fame. Dr. Zemper recently retired as the Director of Research and medical educator for the Statewide Campus System of the College of Osteopathic Medicine at Michigan State University.