Read “A Plea for Improved Scoring” on Page 2 to find out why shots like this are frequently scored incorrectly.

College Connection: The NCAA Clearinghouse ..... Page 5
An Improved Method for Teaching Prone ..... Page 7
A Plea for Improved Scoring
By Gary Anderson, DCM

Ten-meter air rifle targets and 50-foot smallbore targets are very difficult to score accurately because the scoring rings and 10-dots are small and easy to misjudge. It is not surprising then that many match sponsors and coaches score these targets inaccurately, with a result that scores given are usually higher than scores fired. This article seeks to challenge everyone who scores targets to place greater emphasis on learning how to score accurately to assure that paper target scoring becomes significantly better than it is now.

As a result of administering postal competitions with thousands of participants every year and of providing results services for several major air gun competitions, the CMP staff has accumulated considerable experience in scoring targets and in evaluating the scoring done by match sponsors. We know that many air rifle targets are not being scored accurately and that most of these errors can be eliminated by better knowledge of how to score and by better training of scorers. A few examples should illustrate our concern and conclusions.

The CMP acts as the clearinghouse for Three-Position Air Rifle National Records that are fired under National Three-Position Air Rifle Council rules. The process of submitting National Records for approval also requires match sponsors to submit the targets. Two recent four-person team records were scored too high, by a minimum of six and 13 points respectively. A couple of recent individual record scores are also in danger of being rejected because they were scored too high. In evaluating these potential record targets, no shots that were marked as having been gauged and judged by at least two scorers were determined to be incorrect even if there were concerns that the scorers’ decisions were correct. The shots that were scored down were in almost every case, shots that should have been gauged, but were not.

Accurate scoring begins with using the correct scoring gauge and knowing how to read that gauge. All air rifle shots except shots in the 1 and 2-rings must be scored with a 5.5mm “outward gauge.” New scorers must be taught to begin by studying the scoring rules. Rule 8.0 in the National Standard Three-Position Air Rifle Rules governs air rifle scoring. Pay particular attention to the diagram on how to read an outward gauge. To score a higher value, the outer edge of the gauge must be tangent to or inside the target score area.

Continued on Page 6
Sighting Shots

ON THE MARK, the CMP's Newsletter for Coaches and Junior Marksmen, is now available on-line at http://www.odcmp.com/OTM.htm. ON THE MARK is published bi-monthly by the Civilian Marksmanship Program. It is dedicated to disseminating news and information about junior shooting activities to leaders and coaches of junior shooting clubs, teams and camps. Its primary purpose is to help youth shooting leaders teach firearms safety and marksmanship skills more effectively and assist junior shooting leaders and coaches in fostering the continued success and improvement of their young shooters, regardless of skill level. Be sure to bookmark http://www.odcmp.com/OTM.htm to view the latest issue of OTM or to read articles in previous issues.

Camp Perry Junior Open, 18-19 January 2008. The CMP is hosting the second annual Camp Perry Junior Open three-position air rifle match at Camp Perry, Ohio, on 19 January 2008. A training clinic for interested junior shooters and coaches will be held on Friday evening, 18 January 2008. The program provides for 3x20 sporter and precision class individual and team events for school-age juniors, with all competitors having an opportunity to fire an Olympic-style final at the end of each course. The 2008 competition will be fired in Camp Perry’s Bataan Armory, which has a 20 firing point range, but in 2009 the Camp Perry Junior Open will move to a new 80-firing point range being constructed at Camp Perry. Entry spaces are limited so registration in advance is required. You can download the match program and enter on-line at http://clubs.odcmp.com/cgi-bin/matchInfo.cgi?matchID=2857. For more information contact Vicki Donoho at vdonoho@odcmp.com or call 419-635-2141 ext. 1102.

The CMP has a limited supply of Air Rifle Templates for sale. These templates are used during equipment control checks before competitions to ensure that precision air rifles comply with the dimension requirements in the National Three-Position Air Rifle Rules (Rule 4.4). This template can also be used to check compliance with air rifle dimensional requirements in ISSF and USA Shooting Rules. Templates are $20.00 each, including S&H (order NLU #AIRTEMP).

CMP Offers Rifle Clinics. The CMP now offers a limited number of advanced rifle clinics that will be conducted at host clubs in various parts of the country during the fall and winter months. The lead instructor for these new CMP Rifle Clinics is Major Steve Goff, USA (Ret.). Goff was a member of the U. S. Army International Rifle Team for many years, has won numerous international medals and has extensive experience in teaching clinics for the Army team. Two CMP Rifle Clinics have already been held, one for college rifle teams at the Citadel in September and one for junior shooters at the Blue Trail Range in Connecticut in October. Clinic scheduling is flexible, but clinics usually are weekend events involving one and one-half to two days of instruction and coached practice firing. Clubs that are interested in hosting a CMP Rifle Clinic should contact Sommer Wood, CMP Clinic Program Manager, at swood@odcmp.com.

The Camp Perry Retired Marines Holds Monthly Drawings for CMP Affiliated Junior Clubs. As long as funds allow, once a month, this organization will donate an 20-60X80mm spotting scope to a junior team. Any CMP affiliated club that has a junior team is eligible. Go to the CPRM website at http://www.cppretiredmarines.com and open the link “Monthly Drawing” to sign up your club. Once registered, your club’s juniors will be eligible for discounts on certain shooting equipment including spotting scopes, data books, slings, books and videos. The Camp Perry Retired Marines has donated over $42,000 to junior teams during the past 10 years. This organization looks forward to donating even more funding to junior programs in the future. If you have any questions, contact Jim Owens at (334) 347-0020 or email jim@cppretiredmarines.com.

100th Anniversary Bushmaster Limited Edition Still Available. Bushmaster Firearms Intl. LLC is selling Limited Edition 100th Anniversary Camp Perry National Match DCM-XR Series Rifles. From the proceeds of each Anniversary Rifle sold, Bushmaster is donating $100.00 to the Civilian Marksmanship Program’s Junior Highpower Support Program. Only 100 of these 100th Anniversary Camp Perry National Match DCM-XR Series Rifles will be built, and they feature commemorative laser engraved markings. These unique rifles may still be ordered at a special price of $960.00. As all are expected to be sold, Bushmaster’s total contribution to the CMP Junior Highpower Support Program is projected to be $10,000. Orders may be placed by contacting Bushmaster (1-800-998-7928, or http://www.bushmaster.com) and by law; all rifles must be transferred through an FFL Dealer.

ON THE MARK

ON THE MARK Staff:
Gary Anderson DCM
Sheri Judd Admin. Asst. to DCM
Sommer Wood Editor
Christine Elder Communications Manager

ON THE MARK is published bi-monthly by the Civilian Marksmanship Program. It is dedicated to disseminating news and information about junior shooting activities to leaders and coaches of junior shooting clubs, teams and camps. Its primary purpose is to help youth shooting leaders teach firearms safety and marksmanship more effectively.

Subscriptions: One free ON THE MARK subscription is provided to each junior club that is affiliated with the CMP, IROTC unit with a marksmanship program and 4-H Shooting Sports Club. Individual subscriptions to ON THE MARK are available at $8.00 per year. To subscribe to ON THE MARK, contact: 419-635-2141, ext. 1107 or email lmandell@odcmp.com.

Address Changes: To submit address changes or corrections, contact: 419-635-2141, ext. 1107 or email lmandell@odcmp.com.

Editorial Submissions: To submit articles, editorial material or photographs for possible inclusion in ON THE MARK, contact: Sommer Wood, ON THE MARK Editor, P. O. Box 576, Port Clinton, OH 43452; fax 419-635-2573 or email swood@odcmp.com.

Junior Program Resources: To request information about CMP junior shooting programs, contact: CMP Programs, P. O. Box 576, Port Clinton, OH 43452; 419-635-2141 ext. 1101 or email programs@odcmp.com.

ON THE MARK Wants Your Input: We want your letters, questions, comments and opinions. ON THE MARK will dedicate space to publish letters from readers. We may not be able to publish them all, but we do hope to include letters, and answers to the letters, that will be beneficial to the broadest audience. If we do something you like, let us know. If we say something you do not like, let us know. If there is a story you feel we should cover, then let us know. If you have questions or comments please address them to: Letters to the Editor, CMP Headquarters, P.O. Box 576, Port Clinton, OH 43452 or email CMP comments to swood@odcmp.com.

The Civilian Marksmanship Program is a non-profit organization chartered by the U. S. Congress to promote marksmanship training and firearm safety, with a primary emphasis on youth. The CMP is authorized to receive and sell surplus government rifles and ammunition that are suitable for marksmanship. Proceeds from these sales are dedicated to CMP programs. CMP enabling legislation requires that its highest priority must be given to “activities that benefit firearms safety, training and competition for youth.” ON THE MARK is a vital part of CMP efforts to fulfill its mission to serve and develop junior shooting in the United States.

Some days I think I have Attention Deficit Disorder, or A.D.D. At least I think I have the symptoms of the disease, you know, hard to focus, easily distracted, short attention span. So why, if I struggle with those “issues” did I choose to become a shooter where I must focus and concentrate through distractions? The short answer, I do not really know.

When I first started shooting the biggest obstacle I had was my mind. Today, eight years after I fired my first shot, it continues to be my biggest obstacle. The Encyclopedia says the human brain weighs approximately three pounds, which makes up a very small part of my body as a whole, yet it controls my entire being. So how do I control the control center? That is not so easy to answer, and even harder to put into practice.

Imagine you are on the firing line in the standing position and you are about to shoot your ninth shot after shooting eight 10s in a row. Your mind has not yet registered that you could potentially shoot a perfect target because your brain is just doing what it is supposed to do, letting you shoot when the sights are on target. We should pause for a second and separate the control center into two parts: we will now call the conscious part of the control center the mind, and the subconscious part will be identified as the brain. The brain does not need to be told to blink the eyes or to let air come in and out of the lungs, those are just things the brain does automatically-subconsciously. The mind allows thoughts, random as they may be at times, to pulsate through the control center. It is the mind that makes decisions such as when to buy the new ammunition or when to paint your toe nails pink instead of red.

Now let us get back to the firing line, you have two shots left on your 10 round string. Your brain knows it is doing what it is supposed to do, and the mind has not yet realized how good you actually are doing. You shoot the ninth shot and it is a 10, yes! That’s like you, no surprise, but then, hello! Your conscious mind realizes what is going on, there is only one shot left after shooting all 10s! In my case when this happens I start getting excited. My heart rate accelerates and I think, “This could be it. This could be another perfect target to put on my wall of 100s.” Then I start thinking about all the 10s I just shot, and how I only need one more.

The problem is now I am thinking about it which leads to over thinking and over analyzing. When I start analyzing I can pretty much kiss my 10 goodbye. I focus too much on preparing to get a center shot instead of focusing on the shot itself! Why do I do that? The answer for a problem that is shared by many shooters is, we do not trust ourselves enough to make a good decision without our mind having control of our actions. Why do we struggle so much to trust our brain (subconscious), something that is fully capable of achieving more than we can imagine? That is why it is important to discipline our minds to work for us so when we get into high pressure situations we can give it our best without fear of interference.

The best way I have found to do this is to simply ‘stay in the now.’ I’m sure most of you have heard this term. What it means is do not think about what has already past or what is to come, think only about this second. When we put our focus on the past or the future we take our sights off what we are currently working on and stop giving 100% of our time and energy to the now. Why should we blow our energy on something that has already happened when focusing on this moment can help us improve what is to come?

Bernie Marcus, founder of The Home Depot says, “Looking back takes too much energy.” I often struggle with what I call “last shot syndrome,” not the last shot of the target but my last shot in general, especially when I still have more shots to follow. Unlike Mr. Marcus, I am still learning not to look back. I like to examine my last shot(s) and see if it was positive or negative, and that can be helpful unless I allow what I have already done to affect what I am about to do.

Either way, when I think about something that has already happened, unless I am taking that time to learn from it, I am allowing it to influence me in a negative way because I am not moving forward. I cannot allow myself to spend most of my energy and thoughts (energy and thoughts I could be using productively) on something I will never be able to change.

My dad came up with a training system that has helped me tremendously. I call it “flushing the non-10s.” We put up two 10-bull targets side by side, like you do for a typical 3x20 three-position match. I get into position, find my NPA and sight in as I normally would, then I proceed to shoot for “record.” After the first non-10 I shoot will I tell my dad and he will go down range and change out that target, even if it’s the very first record shot. I can then choose to either sight in again on the fresh target or start shooting for record immediately. We do this for at least an hour at a time. If I shoot a non-10 and I knew exactly what I did incorrectly I might re-shoot that bull again, but even if that next shot was a 10 dad would still change the target. He said he wanted me to shoot a clean target after every non-10 even if it meant going through a package of targets a day.

I did not understand that at first, but I do now. When my dad would change my target I did not have to worry about the fact that I had shot a non-10, I just focused on shooting a 10 on this shot. And the training was amazing. It taught me so much about mentally flushing every shot, good or bad, and working towards the next shot.

A few weekends later I shot in the first match since beginning this training system. The match was a three-position air rifle match and I felt prepared. Prone went well, then standing came and I did not really think too much about the training dad and I had done with our “flushing the non-10s” system, I was just ready to shoot.

I got on the line, found my NPA and started shooting sights. My sighters were good and when I felt comfortable I moved on to shoot for record. I shot a few 10s and then came my first non-10. I put my chin on my cheek piece and closed my eyes, as I closed my eyes it was like I was back in our range and I could mentally see my dad walking downrange and putting up a clean target. Then it hit me, I may not have a completely clean target like I would at home, but my next bull is clean and it is waiting for me to shoot a 10. My next shot was a 10.

Continued on Page 5
One of our goals with *On the Mark* is to provide junior shooters the information they need to continue their shooting careers. Far too often a junior’s career ends after graduating from high school. When they choose a college, many school-age juniors simply do not know or they overlook the fact that shooting is a collegiate sport. Not only can you shoot for a college team, but you can earn a scholarship for rifle shooting as well.

There are also lots of junior shooters and parents who know about college shooting, but who do not know how to join one of these teams. So the question is, what steps do you need to take to join a rifle team and possibly earn a scholarship? This article is the first of a new series that addresses the steps every junior should take if they hope to take their shooting to the next level.

The first step prospective collegiate student athletes must take before beginning their college search is to fill out the paperwork for the NCAA Clearinghouse. The Clearinghouse is a branch of the NCAA that is responsible for pre-screening athletes and ensuring that they are eligible to compete for a collegiate team. The paperwork should be filled out and sent in at the completion of your junior year of high school. This gives the NCAA plenty of time to process the application. If you send the paperwork in too late, there may not be enough time for the NCAA to clear you for competition before your freshman year of college begins.

In order to apply for the Clearinghouse, you should meet with your high school guidance counselor and discuss your options. Each applicant must send in a one-time $50 dollar registration fee and have their school submit an official school transcript with ACT or SAT scores. You can find a list of NCAA Clearinghouse requirements and application forms at [http://www.ncaaclearinghouse.net](http://www.ncaaclearinghouse.net).

The NCAA will not clear you for collegiate competition until you have fulfilled your final graduation requirements. However, even though you have not been cleared, being registered with the Clearinghouse gives college coaches the go ahead to actively recruit you. After you register, you will be ready to start looking for a school that is right for you. In the next installment of *College Connection*, I will address how to find universities that have collegiate shooting programs.

---

**Brad Donoho is a graduate of the University of Kentucky where he was a member of the Wildcats Varsity Rifle Team for four years. He was a Team Captain his junior year. Subsequent to his graduation, he also served as Assistant Rifle Team Coach at Kentucky.**

---

Continued from Page 4

I went on to shoot a few more 10s and then a couple more non-10s, but every time I did shoot a non-10, I closed my eyes and mentally saw a new target being put up. I cannot tell you how much that training exercise has helped me. I no longer focus on what I previously shot because as it leaves my rifle it leaves my mind. I tell myself I did the best I could on that shot and now it is gone and now it is time to move forward.

Now get back on the firing line, you still have one more shot left on your target. Do not think about how to prepare for shooting a 100, or even a 10; you know how to shoot a 10. Just let it happen, and trust what you know you can do. My dad says, “Practicing what you know will give you what you want.” So here you are, your gun is loaded and you are getting settled in position for your final shot. You look through the sights, oh yes, NPA is good and you are right on target. Release the trigger and follow through. Look through the scope and see your 10. That is like you! You trusted what you knew, you practiced what you knew and it gave you what you wanted. Great job!
the outer edge of the second scoring ring away from the value being determined.

A primary reason why inaccurate air rifle scoring takes place is that scorers do not know how to look at a shot hole and properly determine whether it should be gauged. The examples provided with this article demonstrate how initial appearances can be deceiving. In each of these shots there is some visual indication that the shot might score the higher value. We have found that many scorers simply “eye-ball” shots like this and decide they are “in” without even gauging them. In each case, the gauge shows that the shots are clearly “out.” A lot of extra points are being given to shooters because of this error.

One of the primary reasons why looking at air rifle shot holes is so deceptive is due to the poor quality target paper available in the U. S. Air rifle pellets typically cut shot holes that are larger than the 4.5mm pellet on virtually all U. S. targets. As it punches through the paper, the pellet tears small bits of target paper fibers from outside of the pellet diameter to leave an enlarged shot hole. We have seen several shot holes so large that the 10-dot is obliterated; yet the shot still scores a nine when a gauge is inserted.

Accurate scores are determined by how far the center of the shot hole is from the center of the target, not by whether an enlarged shot hole touches a scoring ring. The scoring gauge can accurately find the true center of the shot hole, but because the outside of the shot hole may be larger, accurate scoring can only be done by using an outward scoring gauge that is 5.5mm in diameter, not 4.5mm, and by reading the gauge on the outside of a scoring ring that is not damaged by the pellet hole.

Good scorers understand that shot holes may be larger than 4.5mm and that they must gauge every shot that is doubtful. Do not determine whether a shot is doubtful by looking at the inside of the shot hole. The illustrations here show how deceptive that can be. Instead, look at the outside of the shot hole. If there is not a distinct black gap between the outside of the shot hole and the inside of the outer scoring ring, the shot is doubtful and must be gauged.

If scorers understand that air rifle shot holes are typically larger than 4.5mm and that looking at the outside of the shot hole is a surer way to determine whether a shot hole is doubtful and must be gauged, and if they do this with an outward gauge that is properly read, most of the errors in scoring we have seen would be eliminated. After all, the objective of target scoring is to give the shooter the score they actually fire, not an inflated, false score.
An Improved Method for Teaching Prone

Several years of experience in developing and evaluating instructional curriculum for teaching rifle marksmanship to new junior shooters has led us to a conclusion that the best sequence for teaching the firing positions, for most shooting coaches in most instructional situations, is to start with a supported position where basic shot technique can be most effectively practiced. The second position taught should be standing, both because it is simple and because it is the most critical component of later success. The third position should be prone. Prone should come after standing because it is more complicated and because proper sling use can be best be taught after the new shooter is comfortable in handling and firing the rifle. The fourth position should be kneeling, because it is the most complicated position and because prone position experience makes it easier to learn kneeling.

Continual evaluation of the instructional curriculum we provide to several organizations has also led to some changes in the method that we recommend coaches use to teach prone. Earlier methods used a three-step method: 1) get into position without the rifle, 2) get into with the rifle, but without the sling and 3) assume the position with the rifle and sling. In numerous trials with new shooters, better prone positions were developed when we had new shooters attach the sling to the rifle and put it on before getting into position. The teaching method then goes through a series of key points that must be followed in order.

Let’s go through the Steps in Building the Prone Position to see how they fit together and to understand what each step seeks to establish. Note that all descriptions are for a right-handed shooter—simply reverse left and right for a left-handed shooter.

Step 1: Place the shooting mat at a 25-30 degree angle to the line of fire. Prone should be fired on a shooting mat so the initial placement of the mat can help set up the proper body angle when it lies in position. If you place the mat at a 25-30 degree angle, even a first-time shooter will start by laying on the mat with the body at a this angle to the line of fire. Most good prone positions will end up with the body lying at about this angle.

Step 2: Kneel on the mat with the rifle and put the sling on. Start by making sure the sling swivel is moved forward so that it will not influence the left hand location. Also make sure that the sling length is as long as possible. This will assure that the sling is “long and loose” when the shooter first gets into position. Form the arm loop, turn it one-half turn to the left, place the loop high on the arm and tighten the arm loop, but not the sling. Extend the left arm and rotate it over the sling so that the left hand grasps the fore-end and the sling passes over the back of the hand. Be sure to keep the sling long and loose at this stage—trying to adjust sling length before getting into position is one of the worst mistakes that can be made.

Step 3: Lie down on the mat with the left ELBOW under the left sideline. After lying down with the proper body angle, there are three keys to building the position correctly. The first position key is the left elbow. To determine where it should be placed, have the shooter imagine a straight line extending from the left foot to the left hand. The correct location for the left elbow is directly under this line. As a coach you can stand over or behind the shooter and easily see whether the elbow is under this “sideline.” Placing the elbow directly under the left sideline will keep an imaginary plane cutting through the bent arm and sling vertical so that it is best positioned to support the weight of the rifle and upper body.
An Improved Method for Teaching Prone

Step 4: Position the BUTT UP in the shoulder so the head is up. The second position key is the location of the butt-plate in the shoulder because the placement of the butt-plate determines the head position. The code phrase to remember here is “butt up—head up.” If the butt-plate is up in the shoulder, the head will also be up so that the shooter can look comfortably forward through the sights. If the butt-plate is placed too low, the head must be lowered so that the eye must look up instead of forward and aiming is strained. Once the butt-plate—head position relationship is established, the butt should not be shifted up or down in the shoulder to get the sights to point at the target. Do that by going to Step 5. And remember that at this step, the sling swivel must still be forward and the sling must remain loose.

Step 5: Adjust the LEFT HAND location on the stock to bring the sights to the level of the targets. At this stage in building the position, the shooter must be concerned only with raising or lowering the rifle and rifle sights to bring the sights to the level of the targets. Do not try to force the sights to align on a particular target. This vertical adjustment must be made by shifting the left hand forward to lower the sights or rearward to raise the sights. Here is where a coach or assistant can help. With the left hand located so that the sights point at target level, the coach should move the sling swivel back to the fork of the hand and tighten it to mark the proper hand location.

Step 6: Tighten the rifle. Only after the basic prone body position that is determined by the body angle, left elbow location, butt-plate-head relationship and left hand location on the fore-end is established, should the sling be tightened. After these checkpoints or position keys are established, then tighten the sling until it takes over the work of supporting the rifle.

Step 7: Rotate the position on the left elbow so the sights point at your target. With the body in position, and with the sling supporting the rifle and upper body, the sights should be pointing at target level, but they most likely will not be pointing at the correct target. The proper way to move the sights to the correct target is to shift or rotate the entire body-rifle position on the left elbow. The wrong way to do this is to try to muscle or force the sights to point at the target. Learning to shift the entire body-rifle position over the pivot point provided by the left elbow is really the first step in learning how to adjust the natural point of aim (NPA), which will later become a critical success factor in prone. Make this shift by using the feet and legs to lift the body and move it to the right or left (opposite the direction the sights must move on the targets) until the sights point naturally at your target.
An Improved Method for Teaching Prone

An On the Mark Series by Gary Anderson, DCM

This teaching method is distinguished by how few details are taught when initially getting a new shooter into position. Indeed, many coaches must resist the impulse to teach details like foot and leg position or precise elbow placement. Other critical details like getting the shoulders and spine to form an imaginary “T” are automatically achieved if the new shooter simply lies down with the sling long and loose so that the body holds the rifle in its most natural position. The critical thing to remember here is to save the details for later—shoot in this basic position long enough to become comfortable with it—then attend to the details.

Once the basic prone position is established by following these seven steps in building the position, the new shooter must complete many dry fire and live fire repetitions in the position. This is necessary before a new shooter can begin to feel comfortable in it. As this experience base expands, however, the new shooter can start to pay attention to critical success factors like relaxing the left arm as it supports the rifle, relaxing the upper body, sensing and centering the NPA and achieving a near-perfect sight picture for each shot. When this time comes, the new shooters will already have a sound foundation upon which to perfect the prone position.

Postal Round for the 2008 US Army Junior Open Air Rifle Championship Begins

By Sommer Wood, CMP Writer/Editor

The State Championship Postal Competition for the 2nd Annual US Army Junior Open Air Rifle Championships is now open for participants to begin ordering and submitting targets. The event consists of a Three-Position Air Rifle Match for the Sporter Air Rifle Class and an International Standing Air Rifle Match for the Precision Air Rifle Class. Teams and individuals have from 15 November 2007 until 15 March 2008 to enter the postal phase of the competition. This event is open to all school-age juniors, junior clubs, school teams, 4-H clubs, JROTC Units or other organizations with eligible junior members.

Nearly 2,000 juniors competed in the State Championship Postal round of the 2007 competition, with 15 teams and 69 juniors advancing to the shoulder-to-shoulder National Championships which were held at Fort Benning, GA 8-11 August 2007. The 2008 National Championship will be held 7-9 August 2008 at Fort Benning and will include a special training clinic conducted by the US Army International Rifle Team. To enter, download the Target Order Form and submit it to CMP with the $5 entry fee for each participant. The complete program and order forms for this event can be found at http://www.odcmp.com/3P/Army_Jr_Championship.htm. Do not let this match pass you by; download the order form and enter today! If you have any questions regarding match entry please contact Dana Bacak-Lynd at dbacak@odcmp.com or 419-635-2141 ext 1123.
**Three-Position Air Rifle Rule Interpretations**

These rule interpretations are based on questions received by the National Three-Position Air Rifle Council Rules Hotline and are answered based on the National Standard Three-Position Air Rifle Rules.

**Q:** Are shooting sweaters and sweatshirts with or without elbow pads or patches permitted under the shooting coat as Rule 4.6.3 undergarments or training clothing or is their another rule which permits them?

**A:** Rule 4.6.3 in the National Standard Rules is intended to cover anything a precision shooter wears under his/her shooting jacket, whether it be a sweatshirt, shirt, sweater or special shooting sweater. This rule is fundamentally derived from ISSF rules. All clothing worn under the shooting jacket must, when measured together (all layers), not be thicker than 2.5mm or 5.0mm when doubled. Theoretically, that means a shooting sweater with elbow patches or padding could be worn if the thickness of the sweater and anything else worn under it is 2.5mm (5.00mm doubled) or less. No exception can be made for pads, however, so anywhere on the underclothing where there are pads would have to meet the 2.5/5.0mm thickness limit.

**Q:** My cadet is too big for the Daisy Air Arms T200 does not give him enough adjustment in the butt plate to meet his arm length. Is it legal to put a Daisy butt plate on the Air Arms T200 and add spacers to adjust the correct length for him?

**A:** It is legal to add spacers to adjust the length of pull of any sporter air rifle. It is not legal to substitute a Daisy butt-plate for the Air Arms factory butt-plate. Rule 4.2.4 states: “Sporter air rifle stocks must have a conventional design and be symmetrically shaped so that either a right or left-handed competitor can use it. The length of pull of the stock may be adjusted by the use of spacers or other similar means. The length of pull must not be changed during a competition.” The applicable part of the rule is underlined. It is permitted to use some type of spacer under the factor butt-plate to lengthen the length of pull on these rifles. The existing butt-plate must be kept on the rifle, however. It is not permitted to substitute a part from one air rifle unless the substitution of that part is explicitly permitted by the rules (see Rule 4.2.6).

**Q:** When a shooter has a malfunction that is not his/her fault or is interrupted during a match, how are rules 7.15.1 and 7.15.2 applied?

**A:** The first thing Range Officers must do whenever they are called to deal with an interruption is to start a stop watch. At that point, they do not know how long the interruption will last and they must be prepared to award the required amount of additional time. Competitors and coaches should be alert to the requirement for all interruptions to be timed.

1. If the interruption lasts less than one minute, no additional time is permitted.
2. If the interruption lasts more than one minute, but less than 5 minutes, additional time must be given to the competitor(s) equal to the amount of time lost. Additional sighting shots may be awarded only if a competitor must move to another firing point.
3. If the interruption lasts more than 5 minutes, additional time must be given to the competitor(s) equal to the amount of time lost. Additional sighting shots must be permitted.
4. If a shooter must be moved to another firing point, additional sighting shots must be awarded regardless of the amount of time lost.
5. If the interruption is due to a malfunctioning rifle, Rule 7.16.1 limits the amount of extra time that may be awarded to 15 minutes. After 15 minutes have passed, a malfunction may continue to be repaired, but no more than 15 minutes of additional time is allowed. Also note that in a final, a competitor must repair or replace a malfunctioning rifle within three minutes.

---

**Junior Distinguished Badge Program**

The National Three-Position Air Rifle Council established the Junior Excellence-In-Competition Award Program to provide incentives for junior three-position air rifle competitors to improve and excel. This program awards prestigious badges of distinction to the most outstanding junior shooters.

Junior shooters earn EIC credit points by placing in designated competitions in accordance with the requirements of this program. The Junior Distinguished Badge is awarded to school-age junior three-position air rifle shooters who attain a series of high rankings in designated major junior air rifle championships that include the State Junior Olympic Qualifiers, CMP Cup Matches, National Junior Olympic Championships and other National Council Three-Position Air Rifle Championships.

Congratulations to the juniors listed here who recently earned their Junior Distinguished Badges. **ON THE MARK** will recognize all juniors who achieve this outstanding goal in each upcoming issue. A complete list of juniors who have earned their Junior Distinguished Badge is at [http://www.odcmp.com/3P/EIC.pdf](http://www.odcmp.com/3P/EIC.pdf). If you would like more information on this program, visit the CMP web site at [http://www.odcmp.com/3P/EICProgram.pdf](http://www.odcmp.com/3P/EICProgram.pdf) or email CMP Competitions at 3PAR@odcmp.com.

<table>
<thead>
<tr>
<th>Badge #</th>
<th>Name</th>
<th>Hometown</th>
</tr>
</thead>
<tbody>
<tr>
<td>180</td>
<td>Rob Thompson</td>
<td>Ozark, MO</td>
</tr>
<tr>
<td>181</td>
<td>Shawn Spradling</td>
<td>Ozark, MO</td>
</tr>
</tbody>
</table>
By Sommer Wood, CMP Writer/Editor

**CMP Announces Two New Program Managers**

Dana Bacak-Lynd was recently promoted to Program Manager at CMP. Several of her new program responsibilities are related to juniors including Postal Match Administration, tracking Three-Position Air Rifle National Records, Junior EIC Points and sanctioning Three-Position Air Rifle Matches. All are key programs in CMP’s mission in the advancement of juniors in shooting sports.

Ms. Lynd began working for CMP in 1999 as a Sales Associate while completing her Associates Degree in Accounting, and later her Bachelors in Business Management. After two years in Sales she transferred to the CMP Finance Department. Most recently she was a Program Coordinator, where she first became involved with junior programs. She now has over four years of experience working with programs related to Three-Position Air Rifle.

In welcoming Lynd to her new Program Manager position, CMP Director Gary Anderson noted that in her new role Lynd will be able to make even more important contributions to junior shooting as well as to the other programs that she will now manage for CMP.

Dana Bacak-Lynd may be reached by email at dbacak@odcmp.com, or by phone at 419-635-2141 ext 1123.

**New Manager Takes Over State Junior Director Program**

There is a new face to the CMP State Junior Directors program and it belongs to Vicki Donoho. While Donoho is a new CMP staff member, she is not new to the CMP. She has four years of experience as a counselor with the CMP Three-Position Air Rifle Summer Camps. She joins her husband, Brad Donoho, who was hired for the CMP Camp Riffery Manager position in July.

Like her husband, Vicki is a recent graduate of the University of Kentucky where she shot for the school’s NCAA Rifle team. Both an accomplished student and athlete, Vicki was a five-time All-American, Rookie-of-the-Year in all sports at Kentucky in 2003, USAS National Champion in Smallbore, National Team Member, Gold Medal Winner in the Championship of the Americas, National Junior Olympic Champion and a Cum Laude graduate in 2006 with a Bachelors in Biology. Her extensive shooting experience will enable her to bring new growth to the junior programs she will be overseeing.

In addition to the State Junior Directors Program, Vicki will also be involved with the National Three-Position Air Rifle Council and the Three-Position Air Rifle Rules Hotline. Please join us in welcoming Vicki to the CMP family.

Vicki Donoho may be reached at vdonoho@odcmp.com, or by phone at 419-635-2141 ext 1102.
Your standing has been going great during training back at your home range. But now you find yourself in a big match on the 50-meter smallbore range at Fort Benning, GA and your position doesn’t feel quite right. It’s almost like you have to bend a little bit to get the sights down onto the target. Is it match pressure that is causing your position to feel weird, or is it something else? Is there something you can do in training back home to be better prepared for the next match?

The following discussion describes how to figure out where to hang your practice targets when you train at reduced distances so that your positions will be the same in training as when you compete in the big 50-meter matches.

Why do some smallbore ranges make your positions feel strange?
Many of the major smallbore matches held in the USA are shot at the Olympic distance of 50 meters. Two of the most important ranges in the USA are the indoor 50-meter range at the US Olympic Training Center in Colorado Springs, CO and the outdoor 50-meter range at Fort Benning, GA, hosting such important matches as the Junior Olympics and the USA Shooting National Championships. While both ranges have a single bullseye 50-meter smallbore target at one fixed height, the heights are quite different between the two ranges. The 50-meter bullseye at the Olympic Training Center is 75 cm higher than the floor at the firing points, right in the middle of legal range of heights allowed by the International Shooting Sports Federation. The 50-meter bullseye at Fort Benning is only 28 cm higher than the floor at the firing points, very near the lower legal limit.

At what height should you hang your training targets? One key to being prepared for big matches on these important 50-meter ranges is to develop good shooting positions for these ranges. Very few juniors have access to a 50-meter range at their local club or school. There is a way, however, to train at your local club range, or at home, for big matches – you need to hang practice targets, or an aiming spot on the wall for aiming and holding exercises, at a height that ensures that you are pointing the rifle exactly as you would at the 50-meter target.

Determining practice target height.
The equation to calculate how high to hang your targets can be derived using geometry, trigonometry, and algebra. This is basically a problem dealing with similar triangles (See Figure 1). First we need to define some terms, with all distances measured in centimeters:

- \( TTH \) = Training Target Height. This is how high up from the floor you will hang your target or aiming spot.
- \( TTD \) = Training Target Distance. This is how far away you will hang your training target or aiming spot. For example, if you are training on a 10 meter air rifle range, \( TTD = 1000 \) cm. If you are training on a 50 ft smallbore range, \( TTD = 1524 \) cm.
- \( EH \) = Eye Height. This is how high up from the floor your aiming eye is, while in position looking through your sights.
- \( MTD \) = Match Target Distance. This is how far away the targets will be during the match. For example, for a 50 meter international smallbore range, \( MTD = 5000 \) cm.
- \( MTH \) = Match Target Height. This is how high up the targets are during the match, as measured up from the floor at the firing points. The USOTC Megalink 50 meter targets have \( MTH = 75 \) cm. The Fort Benning Sius Ascor 50 meter targets have \( MTH = 28 \) cm.

Calculating an example
For a specific range we can simplify the equation. Let’s look at training for the Junior Olympics to be held on the 50-meter smallbore range at the USOTC in Colorado Springs. The smallbore matches are held at 50 meters, so \( MTD = 5000 \) cm. The middle of the bullseye on the USOTC’s Megalink electronic targets is 75 cm up from the floor, so \( MTH = 75 \) cm. Therefore, the equation for the USOTC 50-meter range becomes:

\[
TTH = EH\left(1 - \frac{TTD}{MTD}\right) + \frac{(MTH)(TTD)}{MTD}
\]

Which simplifies to

\[
TTH = EH\left(1 - 0.0002TTD\right) + 0.015TTD
\]

The Science of Shooting: How to hang your targets at the right height
By Dan Durben
If you also know at what distance you will be training, the equation can be simplified some more. Let’s say you are training on your home range, which is a 50 ft smallbore range. Then TTD = 1524 cm (that’s 50 ft, converted to centimeters) so that:

\[
TTH = EH \left(1 - (0.0002)(1524)\right) + (0.015)(1524)
\]

Which simplifies to

\[
TTH = EH (-0.6952) + 22.86 \text{ for the USOTC 50 m range, training at 50 ft}
\]

This can be used by anyone training at a reduced distance of 50 ft for the 50-meter targets at the USOTC. Finally, for an individual, if you know how high your eye is while in position, you can calculate how high to hang your practice target for that position. For example, let’s say you want to train prone and your eye is 33 cm up from the floor while looking through your sights in prone. The EH = 33 so that:

\[
TTH = (33)(-0.6952) + 22.86 = 45.8 \text{ cm}
\]

This means that if you hang your prone target on your home 50 ft range so that the center of the bullseye is 46 cm up from the floor, you will be pointing at this training target exactly as you will when you shoot prone on the 50 m targets in Colorado Springs.

For another example, let’s say you want to prepare for the smallbore matches at the USAS National Championships at Fort Benning, GA. The matches will be held on a 50-meter range (MTD = 5000 cm). The Sius Ascor electronic targets on that range have the center of the bullseye 28 cm up from the floor of the firing point (MTH = 28). If you are training at 10 meters (TTD = 1000cm) and your eye is 140 cm up from the floor (EH = 140 cm) while shooting standing, you would hang your training target at:

\[
TTH = (140)(1 - 1000/5000) + (28)(1000)/5000 = 117.6 \text{ cm up from the floor}
\]

Creating a table

The Training Target Height Equation can be used in an Excel spreadsheet to generate an easy to use table for each range, where anyone can quickly determine their own practice target height. If you are not too excited about math, the hard work has been done for you for the USOTC and Fort Benning ranges. Simply go to [http://www.odcmp.com/Coaching/TargetHeightTables.pdf](http://www.odcmp.com/Coaching/TargetHeightTables.pdf) to access the Training Target Height tables. You only need to know how high your eye is while in position and at what distance you want to train; then you can look up your training target height in the table.

Some tips

Tip 1: Measuring Training Target Distance. This is really the distance from your eye to the training target. If you are training at 50 feet or at 10 meters, you can simply use the distance from the firing line to the target. However, if you are training at home by aiming at a spot on the wall at a distance shorter than 10 meters, measure the distance from your eye to the target or aiming spot (rather than from the firing line - your eye will normally be about 1 ft further away from the target than the firing line when you are in position).

Tip 2: How to Measure Match Target Height. The target height equation can be used to prepare for any range at any distance. However, remember that the Match Target Height is how high the match target is relative to the firing line. This can be difficult to measure on outdoor ranges where the ground is not level between the firing points and the target. The best way to measure how high the target is relative to the firing point is to use a surveyor’s auto level.

Dan Durben
- Physics Professor at Black Hills State University
- Olympian
- 2000 Olympic Rifle Coach
- 2004 Paralympic Shooting Coach
- Director of CMP’s Three-Position Air Rifle Summer Camps
Montgomery Bell Holds 13th Classic
By Sommer Wood, CMP Writer/Editor

Since 1995 Montgomery Bell Academy has held the MBA Rifle Classic, which has become the premier event to kick-off the high school competition season. High School teams from across the country make the trek each October to Nashville, TN for the two day event. The match this year took place 19-21 October and had an astounding 377 competitors and 68 teams entered.

The MBA Rifle Classic has become so much more than just a rifle match, as it has expanded each year to include clinics by the Army Marksmanship Unit, a fun match for coaches and an opportunity to shop for equipment with an on-site display from Champion’s Choice. As for the competition, there is the main event which consists of a 3x20 Air Rifle Match (20 shots prone, standing and kneeling) which takes place over the course of Friday and Saturday, and an Open International Standing Match (40 shots in the standing position) which is held on Sunday.

The 3x20 event is broken into both Precision and Sporter classes, with a special award category in sporter for competitors with pneumatic rifles which is permitted in the National Standard Three-Position Air Rifle Rules. Awards were given to the teams and individuals with the top aggregate scores in each award category after finals were completed on Saturday afternoon. In the finals, the top eight competitors in each of the three award categories fired ten additional shots from the standing position. The final round score was added to the score fired in the 3x20 match to determine the overall winners. In a final, competitors have 75 seconds to fire a shot and scores are announced after each shot. This makes finals exciting for both spectators and athletes.

The Open Sporter Class for Compressed Air and CO2 Rifles had the largest participation numbers of any category at the event with 174 individuals and 37 teams. Scores were way up in the Open Sporter Class with the top aggregate scores. Finishing second in scoring the 2006 Team Gold medal score. Claiming the 2007 Gold medal in the Open division was Ozark HS AJROTC-Team A from Ozark, MO with a 2207. This score exceeds the Open and Army JROTC Sporter Team National Records, but the final record score and National Record recognition will be determined after an official examination of the team’s targets. This was quite a jump for the team after finishing in second place in the 2006 MBA Classic with a 2098. Ozark’s coach, 1SG Terry Thompson, had three returning shooters from last years second place team and they all made significant gains in their performance. Returning were Kelsea Hunt, 558, Jacob Edwards, 550 and Rob Thompson, 546. Shawn Spradling rounded out the team with a 553 to give them a commanding 63 point victory over second place finisher Bogalusa HS AJROTC-Team A from Bogalusa, LA. This match was still a great improvement for Bogalusa who finished third in the MBA Classic last year with a 2083. This year MAJ Ricky Redieau’s team posted a 2144 to secure the Silver. Scoring team members were Jacob Ding, 549, Clint Walters, 526, Brandon Landrum, 549 and Megan Passaro, 520. RL Paschal HS AJROTC-Team A from Fort Worth, TX finished out the top three with a 2131. The team was coached by LTC Terry LeBoeuf and scoring team members were Daniel Hillario, 536, Xentri Vaughn Garza, 541, Amanda Aguilera, 546 and Yesenia Soria, 508.

In addition to the Team Gold, Kelsea Hunt’s 558+89 Final gave her a 647 to earn the Individual Gold for the Open Sporter Class. Her Ozark HS teammate Shawn Spradling shot at 553+85=638 to earn Silver, and Brandon Landrum of Bogalusa HS shot a 549+87=636 for a close Bronze medal finish.

In the Pneumatic Sporter Class David Crockett HS NJROTC-Team B from Jonesborough, TN claimed the Gold after finishing third in 2006. The team was coached by CDR John Roberts and scoring team members were Geneva Davis, 449, Charles Kilby, 464, Samantha Tesnear, 506 and Elaina Parks, 504 for a total of 1923. Second place finisher and last years winner of the Pneumatic Sporter Class was Sarasota Military Academy-Team A of Sarasota, FL. Coach SFC Riess Pellegrino had no returning shooters from last’s Gold medal team but they still posted a respectable 1912 to finish just 11 points behind first place. Scoring team members were Raymond Houniringer, 465, Katie Griffin, 479, Ariel Lipman, 492 and Dylan Olree, 476. Finishing in third was Greenup County HS MCJROTC-Team A from Greenup, KY. Scoring members Kevin LeMaster, 381, Chance Ritte, 439, Steven Sparks, 363 and Jeremy Nichols, 371, combined for a team score of 1554. Greenup County HS was coached by MGySgt Tom Fenchel.

David Crockett HS teammates Samantha Tesnear and Elaina Parks claimed first and second in the Pneumatic Sporter Class Individual Championship. Tesnear took first with a 506+66=572 and Parks was just behind her with a 504+65=569. Third place went to Arisel Lipman of Sarasota Military Academy who shot a 492+66=558.

For the second year in a row the Precision Class Team Champion had to be determined by a tie-breaker, and for the second time Northside HS-Team A of Columbus, GA was in contention for the Gold. But this year it was East Coweta HS MCJROTC-Team A of East Coweta, GA that found themselves in first place once the ties had been sorted out. Both teams finished with 2306 and ties were broken according to the total of the last 10 shots of kneeling fired by each team member. Members of East Coweta’s Gold medal team were April Dunn, 588, Courtney Duncan, 577, Evan Bouchard, 570 and Jake Watkins, 571. The team was coached by MSGt John Skinner. Northside HS was coached by LTC Richard Brewer and scoring members were...
Family First at the 2007 Western CMP Games

By Sommer Wood, Writer/Editor

The 2007 Western Games held 20-23 October in Phoenix, AZ turned out to be a family affair for several of the competitors who made the trip to the Ben Avery Shooting Facility to participate in the forth annual event. Of the 128 competitors in attendance, there were nine pairs of father/son or father/daughter combinations or, in one case, two brothers registered for the various matches. And in some of the cases, the youngest of the pair left the range with bragging rights over their parent.

This was the case for Jim Minturn of Temecula, California who was the High Junior in both the Garand Match and the Springfield Match. The 15-year-old finished nearly 20 places ahead of his father, Scott Minturn, in both events. Other juniors distinguishing themselves at the Western Games were Alejandro Stephas who was the High Junior in the As-Issued EIC Match, and Kathryn Buggs who was the High Junior in the Creedmoor Cup Aggregate. Buggs finished ahead of her father while Stephas bested his brother.

There was a flip side though, and not all of the younger group got a leg up on their namesakes. This was the case for Paul Rogers of Oceanside, California. He just edged out his son, Derek Rogers, by three places in the Garand Match. But regardless of where family members finished once the final scores were tallied, it was the opportunity to compete together that will create the fondest memories for these shooters from the 2007 Western Games.

For complete results from the 2007 Western Games please visit the CMP web site at http://clubs.odcmp.com/cgi-bin/report_matchResult.cgi?matchID=2516, photos can be found at http://www.odcmp.com/photos.htm.

The 2008 Eastern CMP Games will be held 3-6 May at the Camp Butner, North Carolina.
IN THIS ISSUE

A Plea for Improved Scoring ...........................................2
An Improved Method for Teaching Prone .........................7
Calendar of Events.........................................................11
CMP Announces Two New Program Managers ..............11
College Connection: The NCAA Clearinghouse ..............5
Family First at the 2007 Western CMP Games ..............15
Flushing the Non-10s.......................................................4
Junior Distinguished Badge Program .............................10
Montgomery Bell Holds 13th Classic ..............................14
Postal Round for the 2008 US Army Junior
Open Air Rifle Championship Begins .........................9
Sighting Shots.................................................................3
The Science of Shooting: How to hang your
targets at the right height ...........................................12
Three-Position Air Rifle Rule Interpretations ...............10

Montgomery Bell Holds 13th Classic ..................................Page 14

The Science of Shooting: How to hang your
targets at the right height ........................................Page 12