The Dawn of Orion:
Using Visual Image Scoring (VIS) technology to digitize and score targets

Navy JROTC Postal Competition 2006-07
Individual Postal Results

Total Score: 295

<table>
<thead>
<tr>
<th>Shot</th>
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<th>x</th>
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Prone Series 1: 100 (104.8)

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<td>-0.94</td>
<td>0.36</td>
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</tr>
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Standing Series 1: 97 (101.4)

2007 Camp Perry Open Marks a New Chapter for CMP......Page 14

New Match Sanctioning Program for Junior Three-Position Air Rifle Events......Page 4

From the Training Room
Back Strains and Sprains Page 12
JROTC Postal Competition Goes High Tech in 2006

By Sommer Wood, Staff Writer/Editor

2006 was a milestone year for CMP Competitions. One of the key factors in this success was the continued development of CMP’s innovative system called Competition Tracker or “CT” as it is known by the CMP staff. CT is a computer software program that performs a variety of competition management functions, including maintaining a database of competitors, taking on-line entries for matches and providing real-time score updates from events like the National Matches and CMP sanctioned matches around the country. CMP rules even specify that the official results list for a CMP-sanctioned match is the results list posted in CT on the CMP web site.

By utilizing scanable scorecards, CT enables the CMP to post scores for National Matches events within 30 minutes after they are fired. Last spring at the JROTC Nationals, CT was able to show live, instantly updated results direct from Fort Benning’s electronic target system. Fellow students, teachers and parents back home were able to log onto the CMP web site and see live scores from this competition.

Now one more feature has been added to Competitor Tracker’s bag-of-tricks, electronic scoring of 10-bull paper air rifle targets. For the past eight years, the CMP has overseen the Navy, Army and Marine Corps JROTC postal competitions. These annual postals determine which JROTC unit teams and individual cadets advance to represent their services in the JROTC Eastern and Western Region shoulder-to-shoulder competitions. From those Region Championships, the best unit teams and individuals advance to the JROTC National Championships. This year, for the first time in the history of target shooting, 10-bull paper targets from the JROTC postals were scored electronically by using this new Visual Image Scoring (VIS) technology.

In the first or “postal” round of the 2006-2007 JROTC Championships, thousands of targets needing to be scored poured into CMP Headquarters at Port Clinton, Ohio during the first ten days of December, 16,008 targets to be exact. Before this year, all of those targets had to be scored by hand, by a large group of staff and volunteers. These numbers are up from the 15,063 JROTC postal targets received by CMP last year, so CMP’s new addition to Competitor Tracker couldn’t have come at a better time.

The new program is called Orion. It was developed by Erik Anderson, a former All-American shooter at the University of Kentucky and now a doctoral candidate in electrical engineering at the University of Kansas. The Visual Image Scoring (VIS) technology works by digitizing and scanning images of the target bulls. The scoring program is designed to work with images that can come from any 8.5 x 11 inch flat-bed, consumer grade scanner that can scan at 300dpi or better. The program used by the CMP is officially a beta version, but a final version that is being designed for use in scoring 10-bull rifle targets at clubs and ranges across the country is scheduled for release in the second or third quarter of 2007.

To facilitate the use of a standard scanner, and to make the program useable by typical computer owners, a new 8.5 x 11 inch 10-bull target was created and printed by American Target Company. This required that the white space on the traditional 10-bull target be reduced, but the small change did not seem to have any effect on the competitors. In fact, scores are up from last year’s postal competitions, which were shot on traditional 10-bull targets.

With the high volume of targets, CMP scoring operations were sped up by using the same batch scanner that the CMP uses to scan the thousands of scorecards that are turned in during the National Matches. Each day large baskets of air rifle targets were unpackaged and loaded into the scanner. Once scanned, Orion went to work evaluating the scanned images of the ten bulls-eyes on each target. Orion’s scores were then checked by a human verifier. Three CMP staff members did almost all of the verifying work this year, compared with as many as 20 to 25 staff and volunteers that scored these matches in the past. The deadline for JROTC units to mail their targets was 5 December. The CMP’s deadline for having all targets scored and posted on the Internet was 15 December. Thanks to Orion, all 16,008 were scored and posted by the deadline.

As an added, special feature, Orion software makes it possible for this year’s postal participants to download printable PDF files that show their three-position shot groups together with the scores, tenth-ring scores, X and Y coordinates and radii of each individual shot. Anyone who wants a printout of these scores can click on the total three-position score for an individual shooter and the file will download. Since this year’s postal scores were first posted, nearly 10,000 copies of these individual score printouts have already been downloaded from the CMP’s Competitor Tracker results for the JROTC postals.

Scores for the 2006 Army, Marine Corps and Navy Postal Competitions are found on the CMP homepage at http://www.ocmp.com. The top individual scores in the 2006 JROTC postals were a 282 sporter total fired by Lauren Strebel, a Navy JROTC student at Owen J. Roberts High School in Pottstown, Pennsylvania and identical 295 precision class scores fired by Danielle Poteete, an Army JROTC student at Spanish Springs High School in Sparks, Nevada and Kyle Phillips, a Navy JROTC student at Luella High School in Stockbridge, Georgia. The overall top team scores were a 1,114 sporter team total fired by Ripley High School, Ripley, Tennessee, and a 1152 precision team score fired by the Spanish Springs High School Army JROTC Team. To see all of these scores including the top scores in each of the three service individual and team competitions, click on “Results” below the icon for the JROTC scores you want to view.

The top Army, Marine Corps and Navy unit teams and at-large individual cadets are now qualified to advance to either the JROTC Eastern Region Championships that will take place on 15-17 February at Fort Benning, GA or the JROTC Western Region Championships that will take place on 1-3 March at the Olympic Training Center in Colorado Springs, CO. Congratulations to all the competitors for another successful JROTC Postal!

The Orion screen lets a human verifier review electronic scoring results and evaluate any scoring anomalies.
© Sighting Shots

© Regulations and Applications for the 2007-2008 CMP College Scholarships for JROTC and ROTC Rifle Shooters are posted on the CMP website. Each year up to one-hundred $1000 scholarships are awarded to high school seniors and college underclassmen who excel in rifle marksmanship and who are enrolled in Army, Navy, or Marine Corps JROTC or ROTC programs. Please note that the submission deadlines for 2007-2008 academic year scholarships start on 1 March (check your service regulations for the exact deadline). For more information go to http://www.odcmp.com/Programs/Scholarship.htm.

© The deadline for the 2007 U.S. Army Junior Air Rifle Championship target order forms has been extended to 12 March. All juniors that comply with the rules for school-age teams or individuals (See Rules 3.1.1 or 3.2.1 in the National Standard Three-Position Air Rifle Rules) are encouraged to enter. Entry forms can be downloaded at http://www.odcmp.com/3P/US_Army_TOF.pdf. Postal targets for all participating teams and individuals must be fired and forwarded to the CMP, postmarked not later than 16 March 2007. Complete program and entry information are posted on the CMP web site at http://www.odcmp.com/3P/Army_Jr_Championship.htm.

© M1 Carbines Soon to Be Available from the CMP. The Army has transferred to the CMP a significant quantity of M1 Carbines. We are currently processing these carbines through our Inspection & Repair operations and expect to have some ready for sale by 1 March, 2007, but it may be sooner. More information will be posted on http://www.odcmp.com/rifles/carbine.htm as it becomes available. At this time no decisions have been made as to grading, pricing, or limits. We are not accepting orders or establishing waiting lists at this time.

© 2007 Club Annual Report and Renewal Forms are posted on the CMP website. You can either log in and complete the Club Annual Report online at http://clubs.odcmp.com/cgi-bin/annualReportStart.cgi or download the report at http://www.odcmp.com/Clubs/AnnualReport.pdf. Annual reports are required for a club to maintain CMP affiliation and are due by April 1, 2007. For further information or questions, contact Dana Bacak Lynd at (419) 635-2141 ext. 1123 or via email at clubs@odcmp.com.

© On-line Registration Now Open for the First Eastern CMP Games and Creedmoor Cup Matches. The Inaugural Eastern CMP Games and Creedmoor Cup Matches, which will take place at Camp Butner, North Carolina, on 5-13 May 2007, offer an exciting nine-day schedule of training and competition activities. All shooters, especially shooters who live in the eastern and southeastern parts of the U.S., are encouraged to make plans to attend the first east coast version of the Western Creedmoor Cup and CMP Games Matches. The matches will be at Camp Butner, North Carolina, a National Guard installation north of Durham, North Carolina. The North State Shooting Club, whose home range is at Camp Butner, will host the Matches. Creedmoor Sports Inc. will sponsor the Creedmoor Cup Matches and the CMP will sponsor the CMP Games Matches. Check out the official match program at http://www.odcmp.com/Competition/EasternGames.htm. After you review the program, you can enter any of the CMP or Creedmoor matches on-line at http://clubs.odcmp.com/cgi-bin/matchInfo.cgi?matchID=1841.

© 2007 National 4-H Invitational information is now posted on the internet. For information on this event, which will take place June 25-28 in Rapid City, South Dakota, visit http://www.4-hshootingsports.org/invite06.htm.

© A smallbore/air rifle coach seminar will be held at Union, SC, on 24 March from 9 AM to 4 PM. The course will be taught by National Coach Development Staff member Paul Davis who is also the head coach at the NRA National Rifle Advanced Camps in Vermont and Hawaii and the SC State CMP Junior Director. The course is intended to supplement the knowledge of Appointed and Certified Coaches and is NOT a means for JROTC certification. Interested coaches are asked to contact Coach Davis at pauldavis@charter.net. Registration fee is $25 (payable to “Paul L Davis”) and should be received NLT 14 March. A separate formal NRA/CMP/USAS Smallbore/Air Rifle Appointed Coach School will be held at Union, SC, on 14-15 April. This school does meet JROTC certification requirements. Contact Coach Davis for additional details.

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ON THE MARK

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

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, JROTC 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.

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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 you 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 your letters or 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.

New Match Sanctioning Program for Junior Three-Position Air Rifle Events

By Gary Anderson, DCM

If your organization plans to conduct any type of three-position air rifle match, you should consider sanctioning the match. Sanctioning your position air rifle matches through the National Council offers several benefits, both for the sponsoring organization and for the coaches and shooters who will participate:

Quality Assurance for Competitors. Sanctioned match sponsors must agree to use the National Standard Three-Position Air Rifle Rules and follow established procedures for conducting their matches. As a result, sanctioned match participants can expect well-run matches.

Match Promotion. All matches that are sanctioned in advance are listed in an “Upcoming Events” listing that is posted on the CMP website. Future air rifle events are posted at http://clubs.odcmp.com/cgi-bin/matchUpcomingSearch.cgi?designation=AIR. This list will give juniors and coaches who are searching for matches to attend information about dates, match locations and contact persons.

Internet Score Posting. Most sanctioned matches are eligible to have their competitors’ scores posted on a popular Internet results system that makes those scores available to anyone interested in them. Sponsors of CMP Cup Matches, USA Shooting Junior Olympic state qualifiers and regular sanctioned matches may submit match scores via email on a spreadsheet that will be used to post those scores on the web in a match bulletin format. The electronic results bulletin for the Camp Perry Open that is posted at http://clubs.odcmp.com/cgi-bin/report_matchResult.cgi?matchID=1924 provides an example of these electronic results bulletins.


Several hundred junior three-position air rifle matches are eligible to have their competitors’ scores posted online. Scores from sanctioned position air rifle matches that are reported to the CMP will be posted in electronic match bulletins that can be downloaded and printed or that can also be viewed by anyone interested in scores from a tournament.

Participant Certificates. Match sponsors may, at the time they request match sanctioning approval, request blank participant certificates at no additional cost. After competitors’ names and match information are printed on the certificates, they can be presented as a souvenir of their participation. This recognition can be especially important for matches where there are large numbers of new shooters.

National Council Achievement Pins. Sponsors of sanctioned matches are eligible to order gold, silver and bronze achievement pins that they can present to juniors who meet established “medal scores” for junior three-position shooting. The pins cost $1.00 each and can be ordered through the match sanctioning application. The medal scores are computed on the basis of scores fired in national three-position air rifle postal competitions so that approximately 40-50 percent of the competitors will earn bronze, silver or gold pins. Details are provided in the instructions that accompany the application forms.

Continued on Page 11
CMP Three-Position Air Rifle Summer Camps

Make an Early Appearance in 2007

By Sommer Wood, CMP Junior Training Programs Manager

Improvement is a constant goal at CMP, from creating the latest technology for tracking scores on the web to making registration faster for the National Rifle and Pistol Matches. We pride ourselves in improving the experience for everyone who participates in our events or purchases rifles and equipment. Our Three-Position Air Rifle Summer Camp program is no exception, and this year the CMP’s premier camp program is even bigger and better.

To begin with, the camps were posted and open for registration on 8 January, this is two months earlier than they posted in previous years. This will allow teams more time to raise the funds needed to attend camp, plus it will help parents and coaches make their summer plans much earlier. Hopefully this will allow teams that could not attend camp in the past the opportunity to participate.

Also in an attempt to reach more athletes and coaches, the camp schedule has been extended from seven camps to nine. This includes an advanced Standing Position Camp 13-15 July at Fort Benning, Georgia. This camp will take the place of the Advanced Camp CMP conducted the past two years in conjunction with the USA Shooting National Matches. Unlike the previous Advanced Camp, which was limited to 10 athletes, the Standing Position Camp will be open to 50 campers just like a regular week long camp and athletes will not have to be invited to attend. However, keep in mind before signing up that this intensive camp is for experienced athletes. Former CMP camp experience is strongly suggested because the material taught in class build on lessons learned at previous CMP Camps. Also as the name of the camp states, this is a standing position camp and the focus will be on the collegiate 60-shot standing course of fire for air rifle.

The other camp locations on the schedule for 2007 are El Paso, Texas, Reno, Nevada, Bowling Green, Kentucky, Millersville, Pennsylvania and three weeks of regular camps at Fort Benning, Georgia. A complete schedule including dates can be found on the CMP web site at http://www.odcmp.com/Programs/camp.htm.

One change that unfortunately comes with ever growing costs is an increase in the camp rates for 2007. The CMP hopes that this year’s prices will remain at this level for several seasons to come. The new rates for commuter camps are $225 for athletes and $30 for adults. The new rates for residential camps are $350 for athletes and $150 for adults.

Leading the Camps again in 2007 will be Dan Durben, a 1988 Olympian, the US National Team Coach in the 2000 Olympics and the US Paralympic Team Coach for the 2004 Olympics. Durben, who is a professor at Black Hills State University in South Dakota, is entering his fourth year as the CMP Summer Camp Director. He will once again be assisted by Sommer Wood, an experienced athlete and a graduate of Clemson University where she participated on the club rifle team. Wood, who is also entering her fourth year with the camps, now serves as the CMP Camp Coordinator and Assistant Director. A new staff assistant, but not new to the camps, is James Hall. A graduate of Jacksonville State University where he earned All-American honors all four years on the rifle team, Hall will also serve as an Assistant Director bringing with him four years of experience with the CMP Summer Camps. And as always, the counselor positions for the camps will be filled with collegiate athletes from programs all across the country. These athletes bring with them extensive experience competing on the National and International level. They are what make the CMP Three-Position Summer Camps such a valuable learning experience for all who attend.

We hope to see you this summer, but registration fills quickly. Get your applications and deposits in early so you won’t miss out on this unique opportunity. For complete information on the camps please visit, http://www.odcmp.com/Programs/camp.htm. If you have any questions, please contact Sommer Wood at swood@odcmp.com or call 419-341-5248.

**Camp Location Dates**

<table>
<thead>
<tr>
<th>Camp</th>
<th>Location</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>El Paso, TX (Commuter Camp)</td>
<td>29 May - 2 June</td>
</tr>
<tr>
<td>2</td>
<td>El Paso, TX</td>
<td>4-8 June</td>
</tr>
<tr>
<td>3</td>
<td>Reno, NV (Commuter Camp)</td>
<td>11-15 June</td>
</tr>
<tr>
<td>4</td>
<td>CAMP FULL -Bowling Green, KY</td>
<td>25-29 June</td>
</tr>
<tr>
<td>5</td>
<td>Millersville, PA</td>
<td>2-6 July</td>
</tr>
<tr>
<td>6</td>
<td>Fort Benning, GA (Standing Position Camp)</td>
<td>13-15 July</td>
</tr>
<tr>
<td>7</td>
<td>CAMP FULL - Fort Benning, GA</td>
<td>16-20 July</td>
</tr>
<tr>
<td>8</td>
<td>CAMP FULL -Fort Benning, GA</td>
<td>23-27 July</td>
</tr>
<tr>
<td>9</td>
<td>Fort Benning, GA</td>
<td>30 July - 3 August</td>
</tr>
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</table>
How to Conduct Competitions, Part III

Competition Preparation and Planning

The successful conduct of any competition depends upon how well an important series of preparation and planning actions are carried out. This article describes how to organize and prepare a competition for junior shooters. It tells how to prepare a good match plan, produce a competition schedule and official program and obtain national organization sanctioning.

**COMPETITION PLANNING**

The first step in conducting a competition is to prepare a plan for the competition. The plan should begin with a “competition planning check-list.” Using the Competition Planning Check-List that is printed here will give you a good start in the planning process. For a major competition, step 1, initial planning, may take place as much as a year or more in advance. For a small competition, initial planning may take place only a few weeks before. After your initial meeting, schedule planning meetings for key competition officials at appropriate stages throughout the match organizing process to check on progress and identify special challenges that need attention.

**MATCH SCHEDULE**

When planning a shooting competition, the match schedule is one of the first and most critical planning elements to complete. No competition should be conducted without a schedule. The match schedule provides a detailed timetable for each activity that will take place on the day(s) of the competition. Normally, a schedule identifies and gives start and stop times for such things as check-in or registration, each relay of competitors who will fires, any finals that may be conducted and any concluding activities such as award ceremonies. Here are some guidelines to follow in developing your schedule:

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<thead>
<tr>
<th>Competition Planning Check-List</th>
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<tbody>
<tr>
<td><strong>1. Initial Planning</strong></td>
</tr>
<tr>
<td>Assemble key leaders—make decision to conduct match.</td>
</tr>
<tr>
<td>Appoint Match Director, Chief Range Officer and Results Officer for the match.</td>
</tr>
<tr>
<td>Develop preliminary plan for the match.</td>
</tr>
<tr>
<td><strong>2. Range Facilities</strong></td>
</tr>
<tr>
<td>Schedule range.</td>
</tr>
<tr>
<td>Make contractual arrangements for using the range and other facilities, if required.</td>
</tr>
<tr>
<td>Is a certificate of insurance or other documentation required?</td>
</tr>
<tr>
<td><strong>3. Schedule &amp; Program</strong></td>
</tr>
<tr>
<td>Draft, review and publish competition schedule.</td>
</tr>
<tr>
<td>Draft, review and publish competition program.</td>
</tr>
<tr>
<td>Make plans for special events, food service, etc.</td>
</tr>
<tr>
<td><strong>4. Sanctioning</strong></td>
</tr>
<tr>
<td>Submit applications to appropriate governing bodies to obtain official sanctioning and approvals.</td>
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<tr>
<td><strong>5. Match Supplies</strong></td>
</tr>
<tr>
<td>Order targets and other supplies required for the match.</td>
</tr>
<tr>
<td>Confirm that all supplies needed to conduct the match are ordered or on hand.</td>
</tr>
<tr>
<td><strong>6. Promote Participation</strong></td>
</tr>
<tr>
<td>Obtain/review mailing and/or email lists of potential participants.</td>
</tr>
<tr>
<td>Send out email notices with links to program or mail copies of program to mailing list.</td>
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<tr>
<td><strong>7. Competition Staff</strong></td>
</tr>
<tr>
<td>Recruit, train and organize competition staff (range officers, scorers, etc.) as required.</td>
</tr>
<tr>
<td>As a general rule, there should be two scorers for each ten firing points.</td>
</tr>
<tr>
<td>There should be one range officer for each ten firing points.</td>
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<tr>
<td><strong>8. Publicity</strong></td>
</tr>
<tr>
<td>Develop a publicity plan, especially if it is a major competition.</td>
</tr>
<tr>
<td>Appoint a Publicity Chairman and develop press releases.</td>
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<tr>
<td><strong>9. Entries</strong></td>
</tr>
<tr>
<td>Set up a competitor database to record essential data on all competitors.</td>
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<tr>
<td>Enter competitor data from entries as they are received.</td>
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<tr>
<td>Acknowledge entries/keep participants informed.</td>
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<tr>
<td>Determine how competitors will be squadded.</td>
</tr>
<tr>
<td><strong>10. Results System</strong></td>
</tr>
<tr>
<td>Set up results system.</td>
</tr>
<tr>
<td>Will competitors and scores be tracked on an Excel file or similar database?</td>
</tr>
<tr>
<td>Prepare to submit results to the match sanctioning organization.</td>
</tr>
<tr>
<td><strong>11. Final Preparations</strong></td>
</tr>
<tr>
<td>Move supplies into the range.</td>
</tr>
<tr>
<td>Label and prepare targets.</td>
</tr>
<tr>
<td>Prepare the range/check targets/clean the range.</td>
</tr>
<tr>
<td>Set up check-in table/area.</td>
</tr>
<tr>
<td>Set up official bulletin board.</td>
</tr>
<tr>
<td>Set up areas for equipment storage &amp; competitor rest area.</td>
</tr>
<tr>
<td>Prepare and post start lists (relay &amp; firing point squadding).</td>
</tr>
<tr>
<td><strong>Activities on the Day(s) of the Match</strong></td>
</tr>
<tr>
<td><strong>12. Confirm Entries</strong></td>
</tr>
<tr>
<td>Greet and check competitors into the match.</td>
</tr>
<tr>
<td>Collect entry fees as required.</td>
</tr>
<tr>
<td>Issue squadding and targets, assist coaches and competitors as required.</td>
</tr>
<tr>
<td><strong>13. Conduct Firing</strong></td>
</tr>
<tr>
<td>Range Officer(s) conduct firing on range.</td>
</tr>
<tr>
<td>Range Officer(s) conduct finals as required.</td>
</tr>
<tr>
<td><strong>14. Scoring &amp; Results</strong></td>
</tr>
<tr>
<td>Collect and transport targets to scoring room.</td>
</tr>
<tr>
<td>Score targets.</td>
</tr>
<tr>
<td>Enter scores in results system.</td>
</tr>
<tr>
<td>Post preliminary results lists.</td>
</tr>
<tr>
<td>Conduct challenge periods.</td>
</tr>
<tr>
<td>Post final results list.</td>
</tr>
<tr>
<td><strong>15. Awards</strong></td>
</tr>
<tr>
<td>Present awards at end of match (if possible).</td>
</tr>
<tr>
<td><strong>Post-Competition Activities</strong></td>
</tr>
<tr>
<td><strong>16. Competition Wrap-Up</strong></td>
</tr>
<tr>
<td>Distribute awards not presented at the competition.</td>
</tr>
<tr>
<td>Distribute final results bulletin.</td>
</tr>
<tr>
<td>Send reports to sanctioning organization.</td>
</tr>
<tr>
<td>Conduct evaluation of competition with match staff.</td>
</tr>
</tbody>
</table>

Competitors in your match will be rewarded with a well-organized match if you based the conduct of your match on a carefully prepared schedule of events.
How to Conduct Competitions, Part III

An On the Mark Series by Gary Anderson, DCM

• The scheduled start time for a relay is the time when firing starts. Preliminary steps like moving competitors to the firing line and conducting the initial preparation period should take place before the scheduled start time.

• Strive to start all events on time, according to the schedule. This is one of the primary marks of a well-run competition.

• Keep careful records (range officer log) on how long it takes to conduct a complete relay for the type of firing done in your competitions. For example, a 3x20 three-position air rifle event where paper targets are changed between relays usually takes 2 hours, 30 minutes, to complete. Plan your relay start times by using this data.

• Never change a schedule unless 100% prior notification can be given to all registered competitors who will be affected by the change.

• Try to schedule a coaches or team leaders meeting before a competition starts so that competition procedures and any schedule adjustments can be discussed. This is especially important if large numbers of new or inexperienced shooters are expected.

• Never start any scheduled activity before its published start time unless 100% notification is given to all affected competitors.

• Try to make your schedule work. If you are running behind schedule, strive to minimize delays to keep on schedule to the extent possible.

MATCH PROGRAM

As soon as the decision to conduct a match is made and a schedule is prepared, an “official match program” must be drafted, checked and made available to prospective participants. The rules of match sanctioning organizations like the CMP, NRA or USA Shooting all require that a match program be prepared for distribution to competitors and coaches and that a copy of the program be submitted with sanctioning applications. The purpose of a match program is to provide competitors and coaches with all of the detailed information they need to prepare for and participate in that competition.

Here is a checklist of the basic information items that should be included in a match program:

• HEADER. The program header should display the official name of the competition, the city and state where it is held and the dates. Use a club or match logo to give your match an enhanced visual image.

• MATCH LOCATION. Describe the range to be used for the competition and give detailed directions on how to find it.

• MATCH SPONSOR. Identify the organization(s) that is sponsoring and conducting the competition.

• RULES. Identify the specific rules that will govern the competitions. For example, three-position air rifle events are usually governed by the National Standard Three-Position Air Rifle Rules, most international-style air rifle standing, smallbore position and pistol event are governed by USA Shooting Official Rules and other junior events such as BB gun and highpower rifle matches are governed by the appropriate NRA rulebook. All match sponsors are urged to recognize and use an established national rulebook and to avoid using non-standard local rules.

• EVENTS. Identify the specific competition events on the match schedule; describe the courses of fire that will be fired. Will there be more than one event in which competitors can participate? Will there be team events? If there are separate sporter and precision classes in three-position air rifle events, this must be explained in the program.

• SCHEDULE. The match schedule with start times for each of the competition’s activities should be published as part of the program.

• ELIGIBILITY. Describe the groups of competitors who are eligible to compete in the competition. Are there any restrictions on who may participate? If the match is an invitation match for specific groups or for teams, clearly identify the group(s) eligible to enter. Give specifics on any competitor classes or categories that will be used.

• MATCH PROCEDURES. Describe how the match will be conducted, especially if there are any special conditions unique to your range or match with which competitors will be required to comply. For example, if all competitors are

Continued on Page 8
required to wear shooting glasses on your range, this should be clearly stated in the program. Competitors and coaches should not be surprised by special conditions that they might encounter at your match.

- **AWARDS.** Describe the awards that will be presented. If there will be place, class, category or special awards, tell how those award winners will be selected.

- **ENTRY FEES.** List all entry and registrations fees that will be collected. Explain whether entry fees must be paid in advance or may be paid on the day of the competition. Is there a cancellation fee? Can entry fees be paid by check or credit card?

- **HOW TO ENTER.** A good match program makes it easy to enter your competition. The best way to do this is to provide an entry form with clear instructions for completing the entry. List the name, mailing address and other pertinent information such as phone and fax numbers and email address for the person who will receive entries.

- **ACCOMMODATIONS.** If competitors are coming from some distance away and will be expected to remain overnight before or after the match, they would appreciate information about nearby motels and restaurants where they can obtain accommodations.

- **FURTHER INFORMATION.** Be sure to provide the name of the person to contact if anyone has questions or wants additional information about the match. Provide email addresses and phone numbers.

**MATCH SANCTIONING**

After the match plan, competition schedule and official program are ready, the next planning step is to apply for match sanctioning by the national organization that governs the type of competition being conducted. Match sanctioning offers a “seal of approval” to potential participants that your competition will be conducted according to high standards with nationally recognized rules.

The CMP sanctions Three-Position Air Rifle matches on behalf of the National Three-Position Air Rifle Council. Contact: CMP Competitions, P. O. Box 576, Port Clinton, OH 43452; competitions@odcmp.com; 419-635-2141, ext. 1101. The cost of sanctioning a three-position air rifle match is $10 or $20, depending upon the type of competition; there are no other competitor fees.

USA Shooting sanctions all types of international-style events including standing air rifle, smallbore rifle 3-position and prone and pistol. Contact: USA Shooting Competitions Department, http://www.usashooting.org.

The NRA sanctions many different types of competition events that are offered to junior shooters including BB gun, air rifle and smallbore rifle. Contact: NRA Competitions Division, Tournament Operations, https://www.nrahq.org/compete/dept-tourn-ops.asp.

Sanctioning matches offers several benefits, both for the sponsoring organization and for the coaches and shooters who will participate:

- **Quality Assurance for Competitors.** Sanctioned match sponsors agree to use standard, nationally recognized rules and to follow established procedures for conducting their matches. As a result, participants in sanctioned matches can expect well-run matches.

- **Match Promotion.** The CMP, NRA and USA Shooting all provide printed or Internet-based listings of upcoming matches that can help promote attendance. For example, three-position air rifle matches sanctioned by the CMP are posted on the CMP website at http://clubs.odcmp.com/cgi-bin/matchUpcomingSearch.cgi?designation=AIR. These listings give shooters, coaches and parents who are searching for matches to attend information about dates, match locations and contact persons.

- **National Award and Classification Systems.** Three-position air rifle matches sanctioned by the CMP make Achievement Pin as well as “excellence-in-competition” and the prestigious Junior Distinguished Badges available to participants. Matches sanctioned by both the NRA and USA Shooting offer registered participants opportunities to be part of national competitor classification systems that are used in many matches to provide awards based on shooters’ levels of ability.

- **National Records.** Only scores fired in officially sanctioned matches can be recognized as national records by the national organization governing that type of competition.

To sanction your match, obtain the necessary application forms and instructions from the CMP, NRA or USA Shooting, fill them out and submit them, preferably several months in advance. The sanctioning organizations will also require the submission of post match reports and, in some cases, competitor fees. Plan your match completion operations so that any post-match reports can be filed as soon as possible after the match.

If you make it a priority to carefully plan your match in advance, work out a detailed schedule of events and match program and sanction your match through the CMP, NRA or USA Shooting, you will have taken a series of essential steps towards having a successful competition.
The Science of Shooting:
Why Does Your Hand Fall Asleep in the Sling Positions?

By Dan Durben

You are 12 shots into the prone phase of the big match and things are going great. However, you notice that your left hand, the hand that is supporting the rifle stock, is tingling. A couple of shots later your hand goes completely numb. What is going on and what should you do about it?

Having parts of the body “fall asleep” while shooting is a familiar occurrence among shooters. The most common body parts that fall asleep are the hand supporting the stock in prone (left hand for right handed shooters) and the foot that is on the kneeling roll in kneeling (right foot for right handed shooters). Some shooters may even have their toes or feet fall asleep during standing. Here is an explanation of what is happening and some simple tactics to deal with this to ensure that you maintain a strong performance through the end of the match.

What causes your hand to fall asleep?

What you are experiencing is the result of nerve compression. The sensations you feel are due primarily to the nerve’s blood supply being cut off by the compression of the blood vessels that lie within the connective tissue of the nerve itself. Nerves are very highly dependent on this small vessel blood supply. Constricting blood flow deprives the nerves of oxygen and nutrients, which can cause motor and sensory nerve dysfunction. The continuous pressure on your hand squeezed between the stock, hand-stop and sling causes continued compression of the nerves in your hand. If this compression is strong enough to constrict the blood vessels inside the nerves, the feeling of the body part supplied by those nerves, your hand in this case, inside the nerves, the feeling of the body part is strong enough to constrict the blood vessels of the nerves in your hand. If this compression continues the nerves, the blood supply restored to the nerves, there is an adjustment period as the nerve impulses begin to flow properly again. The thickness of the sheath surrounding different nerve fibers impacts the nerve’s ability to bounce back. Thin motor control nerve fibers recover quickly, which is why you can wiggle your fingers before full feeling has returned to your hand. Nerve fibers that transmit pain and temperature are also relatively thin. As these nerves recover you get an intense “pins and needles” sensation, sometimes accompanied by a burning sensation. Nerve fibers that transmit touch are thicker, so normal feeling takes longer to return. Eventually all the nerve fibers return to normal and you regain full use of the body part. However, the longer the nerves have been compressed, the longer they will take to recover.

You’ve finished the match but the pinkie and ring fingers on your left hand are still numb!

While rare, occasionally a shooter will experience longer-term numbness of the pinkie and ring finger, sometimes lasting for a few days. This is caused by extended compression of the ulnar nerve. This is the nerve that causes the tingling sensation when you whack your “funny bone”. The ulnar nerve gives sensation to the pinkie finger and half of the ring finger and runs just inside the ulna (the pointy part of the elbow). Since the ulnar nerve lies just under the skin at the elbow it is especially susceptible to compression from the prolonged pressure placed on the elbow in prone and kneeling. In general, the numbness is not a problem – the nerve will usually recover within a few days.

Why does your hand “fall asleep”?

When pressure is removed from the body part and the blood supply restored to the nerves, there is an adjustment period as the nerve impulses begin to flow properly again. Often, you notice that your left hand, the hand that is supporting the rifle stock, is tingling. A couple of shots later your hand goes completely numb. What is going on and what should you do about it?

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So what should you do when your hand or foot starts to fall asleep?

When you start to feel the tingling, take a quick break to allow your nerves to regain proper function. Practice ways to take short, comfortable breaks that relieve the pressure on the body part that is falling asleep. To relieve the pressure on your hand in prone, try placing the butt of the rifle on the ground and pulling your hand out from under the stock (you can either grab the stock with your trigger hand or rest the stock on your kneeling roll). To relieve the pressure on your foot in kneeling, place the butt of the rifle on the ground and lean forward to rise up slightly off the foot that is on the kneeling roll (be sure to keep your muzzle pointed downrange). In standing, shift your weight from one foot to the other to relieve the pressure on your toes or feet.

When caught early it usually takes only a few seconds for the nerves to recover, so these breaks can be rather short. The sensation may feel like blood flowing back into the body part, but this is really just your nerves recovering their proper function. Practice taking these short breaks so that you are confident about getting back into position and continuing to shoot good shots.

By listening to the signals your body is giving you (the tingling that says, “I’m losing it over here, come on, take some pressure off me!”) you can avoid the painful process of “waking up” a body part and you can continue to keep shooting well-executed shots, with confidence, through the end of the match. This way, when your hand starts to tingle after your 12th shot in prone, you can confidently take a quick break, get the nerves in your hand functioning properly again, and then get back to shooting 10’s.

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
Three-Position Air Rifle Rule Interpretations

Q: Rule 5.5.4 states, “all targets on a range must be hung at the same height. The tolerances allowed here are intended to accommodate variations from range to range; they do not permit target height variations for individual shooters on the same range.” Why can’t we accommodate very short or very tall shooters by allowing them to take advantage of the 2 or 4 in. toleration limit that is in the rules and hang their targets that much higher or lower. Why does it really matter that all targets be hung at the same height? We like to say that everybody in air rifle marksmanship competes on an equal basis and that nobody has an advantage. That’s not really true when we don’t allow for some variation in target height.

A: It’s a nice theory to assert that by hanging targets higher or lower to accommodate a shooter’s height, this would equalize conditions for taller or shorter shooters. The truth is that by making relatively minor adjustment in the location of the support hand on the fore-end (forward & backward), more than this amount of height adjustment can be achieved by any shooter. Adjustments of even greater magnitude are accomplished by changing hand positions. A second consideration that says the theory of changing target height to match shooter height won’t work is that the real factor in determining how a shooter must adapt to target height is the relationship of that particular shooter’s arm length to torso length. What this means is that a short shooter with arms that are longer in proportion to his/her torso length will still need a low support hand position to bring the rifle down to the standard target height (55 in.). Conversely, a tall shooter with a long torso and relatively shorter arms will need a higher support hand position just to bring the rifle up to the standard target height. The shooters’ heights are irrelevant in these cases. The bottom line is that helping any shooter develop standing, kneeling or prone positions that bring the rifle up or down to standard target heights is a coaching problem, not a matter of slightly raising and lowering target heights to accommodate shooter heights. The real reason for not allowing target height variations within a single range are that most air rifle target backstops in use today place targets at fixed prone, standing and kneeling heights so on these ranges it would be impossible to allow shooters to raise or lower targets up or down. Allowing shooters to raise or lower target heights on their home ranges would place them at a serious disadvantage when they compete on an air rifle range where target heights are fixed and cannot be adjusted. Rulebook height limits seek to standardize target heights so that shooters can travel from one range to another and not be forced to modify their positions by target height variations because they will know what to expect on every range.

Q: Rule 7.12.1. states that the sighting shots must be fired on the first record target. The rule also states that sighting shots may be fired on the other target under special circumstances. Here is my question, I taught my cadets to pound the sighting rings and get the sights set to center 10. It only takes about 3 to 6 shots to completely remove the 9/10 rings and then the shooter can no longer tell where pellets are hitting. When this occurs on both sighters targets on the first record target can the shooter request to move to the other target and finish the sighting process and then begin on that target for score.

A: Rule 7.12.1 also states that “the Range Officer may authorize sighting shots on the second record target in special circumstances.” If a shooter shoots enough sighters on the two sighting bulls on target number one, they could call the Range Officer and ask for permission to shoot additional sighters on a sighter bull on target number two. Normally, a Range Officer should grant permission to do this, but it is absolutely essential that Range Officer permission be requested. If this is not done, then the penalties specified in this same rule must be applied to all sighter shots fired on target number two. Since the rules do not specify the order in which shots must be fired, it would then be possible to begin firing on target number two and finish on target number one.

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 a series of designated junior air rifle championships that may 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 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. If you would like more information on this program, visit the CMP web site at http://www.odcmp.com/3P/EICProgram.pdf or email CMP Competitions at competitions@odcmp.com.

<table>
<thead>
<tr>
<th>Badge #</th>
<th>Name</th>
<th>Hometown</th>
</tr>
</thead>
<tbody>
<tr>
<td>145</td>
<td>Logan Fox</td>
<td>Bagdad, KY</td>
</tr>
<tr>
<td>146</td>
<td>Jim Fitz</td>
<td>Grove City, OH</td>
</tr>
<tr>
<td>147</td>
<td>Matthew Berkley</td>
<td>Ripley, TN</td>
</tr>
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</table>
New Match Sanctioning Program for Junior Three-Position Air
Rifle Events- Continued from Page 4

One-Stop Match Supply Source. Some essential supplies needed to
conduct position air rifle matches also may be ordered by using the match
sanctioning applications. These supplies include targets, rulebooks and
CBIs (clear barrel indicators, now required for all air rifles). The cost of
ordering targets through the CMP is only $12.50/250.
There are five different types of position air rifle matches that can be
sanctioned through the CMP and National Council.
Regular Matches. Most air rifle matches are sanctioned as regular
air rifle matches. These are one-time events that may have 3x10 or 3x20
courses of fire, with or without finals, and with or without team events.
Competitors in regular sanctioned matches may earn achievement pins
and set national records and results may be posted on the Internet.
Leagues. Leagues involve a known group of teams or clubs that fire
an established series of shoulder-to-shoulder competitions. Position air
rifle leagues can now be sanctioned through this program.
Postal Matches. The new National Council match-sanctioning pro-
gram provides, for the first time, for the sanctioning of postal matches.
This will make it possible for postals to be listed in the national upcoming
events to give them additional publicity that can increase participation.

CMP Cup Matches. These are major competitions with 3x20 courses
of fire that have a range capacity for 50 or more shooters. CMP Cup
Matches are important because the top 10 percent of all Non-Distin-
guished juniors in these matches earn EIC credit points that count toward
the awarding of the prestigious Junior Distinguished Badge.

State Junior Olympic Championships. Junior Olympic State Cham-
pionships are special events where the winning teams and some individual
shooters can qualify for the National Junior Olympic Championship. State
Junior Olympic matches must first be approved by USA Shooting and
are then recognized as sanctioned competitions by the CMP and National
Council.

If your club or organization plans to conduct any of these five types of
three-position air rifle competitions, you may apply to have your match of-
officially sanctioned by submitting an Application to Conduct a Three-
Position Air Rifle Match to the CMP. Application forms may be downloaded
pdf. From there you can download the application form and detailed in-
structions that accompany the form.
The fees for sanctioning a position air rifle match are $10.00 for a
Regular Sanctioned Match, Postal or League and $20.00 for a CMP Cup
Match. No additional fees are charged for individual shooters who partici-
pate in your matches.

To sanction your three-position air
rifle match, download the application
form and instructions from
pdf.

Then complete the application and
send it with the $10 or $20
sanctioning fee to the CMP.

CALENDAR OF EVENTS
The Calendar of Events is featured in every issue of On The Mark. If
you would like your match or clinic listed, please contact the CMP at
onthemark@odcmp.com, or call 419-635-2141, ext. 1111. Please include the
name of the event, date, whom the event is open to and contact information and
website (if available). The CMP will do its best to accommodate each request
to be included in the Calendar of Events.

1-3 March 2007
JROTC Western Region Championship, Colorado Springs, CO
9-10 March 2007
NCAA Rifle Championship, Colorado Springs, CO
12-14 April 2007
National JROTC Championship, Fort Benning, GA
5-13 May 2007
Eastern CMP Games and Creedmoor Cup Matches, Camp Butter, NC
19-25 May 2007
4-H Shooting Sports Training Workshop, Wakefield, VA
11-14 June 2007
NJROTC Region 3 BLT Marksmanship, Camp Perry, OH
24-29 June 2007
Eastern States Junior Highpower Championship, Camp BUTer, NC
25-28 June 2007
National 4-H Shooting Sports Invitational, Rapid City, SD
29 June - 1 July 2007
Daisy-USJCC BB Gun Championship, Bowling Green, KY
2-3 July 2007
Daisy Open Air Rifle Championship, Bowling Green, KY
4-6 July 2007
National Junior Olympic 3PAR Sporter Championship, Bowling Green, KY
7-9 July 2007
USA Shooting Progressive Pistol Championship, Bowling Green, KY
9-10 July 2007
Pistol Small Arms Firing School & M9 EIC Match, Camp Perry, OH
10-12 July 2007
National Junior Olympic 3PAR Precision Championship, Bowling Green, KY
15 July 2007
National Trophy Pistol Matches, Camp Perry, OH
21-22 July 2007
National Rimfire Sporter Clinic & Match, Camp Perry, OH
28-29 July 2007
Rifle Small Arms Firing School & M16 EIC Match, Camp Perry, OH
27-29 July 2007
USMC Junior Highpower Clinic, Camp Perry, OH
30 July - 4 August 2007
National Trophy Rifle & CMP Games Matches, Camp Perry, OH
7-12 August 2007
American Legion 3PAR National Championship, Colorado Springs, CO
8-11 August 2007
U. S. Army Junior Air Rifle Championship, Fort Benning, GA
TBA Sept-Oct 2007
National Coaches College & CMP SJD Workshop, Colorado Springs, CO
12-14 October 2007
MBA Classic (3-P Air Rifle Championship), Brentwood, TN
12-16 October 2007
4th Western CMP Games, Camp Pendleton, CA
17-21 October 2007
Western Creedmoor Cup Matches, Camp Pendleton, CA
21-23 October 2007
National 4-H Extension Agents Conference, Atlanta, GA
If you have lower back pain, you are not alone. Nearly everyone at some point has back pain that interferes with work, routine daily activities, or recreation. Americans spend at least $50 billion each year on low back pain, the most common cause of job-related disability and a leading contributor to missed work. Back pain is the second most common neurological ailment in the United States — only headache is more common. Fortunately, most occurrences of low back pain go away within a few days. Others take much longer to resolve or lead to more serious conditions.

Up to 20% of all injuries that occur in sports involve the lower back or neck. Sports that use repetitive impact (e.g., running) or weight loading at the end of a range-of-motion (e.g., weightlifting) commonly cause damage to the lumbar spine (lower back). Sports that involve contact (e.g., football) place the cervical spine (neck) at risk of injury. The thoracic spine (mid portion of the spine at the level of the rib cage) is less likely to be injured in sports because it is relatively immobile due to the rib cage.

**What is a strain?**

A strain is an injury to either a muscle or tendon. Tendons are the tough, fibrous bands of tissue that connect muscle to bone. With a back strain, the muscles and tendons that support the spine are twisted, pulled, or torn.

**What is a sprain?**

A sprain is the stretching or tearing of a ligament. Ligaments are the fibrous bands of tissue that connect two or more bones at a joint and prevent excessive movement of the joint.

**What are the symptoms of a back strain or sprain?**

Symptoms of a strain or sprain include:

- Pain that worsens with movement
- Muscle cramping or spasms (sudden uncontrollable muscle contractions)
- Decreased function and/or range of motion of the joint (difficulty walking, bending forward or sideways, or standing straight)

In some cases, the person may feel a pop or tear at the time of the injury.

**What causes a back strain or sprain?**

Twisting or pulling a muscle or tendon can result in a strain. It can also be caused by a single instance of improper lifting or by overstretching the back muscles. A chronic strain usually results from overuse involving prolonged, repetitive movement of the muscles and tendons. This chronic condition occurs more frequently in shooters who use an extreme backbend in the standing position.

A sprain often results from a fall or sudden twist, or a blow to the body that forces a joint out of its normal position. All of these conditions stretch one or more ligaments beyond their normal range of movement, causing injury.

In addition, there are several factors that put a person at greater risk for a back strain or sprain, including excessively curving the lower back, being overweight, having weak back or abdominal muscles, and/or tight hamstrings (muscles in the back of the thighs). Playing sports that involve pushing and pulling — such as weightlifting and football — also increases the risk of a low-back injury.

In rifle shooting, standing positions that have an exaggerated back or spinal bend may cause discomfort or, in rare cases, even injury. Standing positions where the forward hip is thrust forward and up are more frequently associated with back pain or possible injury.

Four factors are associated with increased risk of back pain and injury:

- **Force**: Exerting too much force on your back may cause injury. If your job is physical in nature, you might face injury if you frequently lift or move heavy objects.
- **Repetition**: Repetition refers to the number of times you perform a certain movement. Overly repetitive tasks can lead to muscle fatigue or injury, particularly if they involve stretching to the end of your range of motion or awkward body positioning.
- **Posture**: Posture refers to your position when sitting, standing or performing a task. If for instance you spend most of your time in front of a computer, you may experience occasional aches and pains from sitting still for extended periods of time. On average, your body can tolerate being in one position for about 20 minutes before you feel the need to adjust.
- **Stress**: Pressures at school, at work or at home can increase your stress level and lead to muscle tension and tightness, which may in turn lead to back pain.

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**Pelvic Tilts**

Starting Position: Lie on back with knees bent and feet flat on the floor.

Action: Keeping hips in contact with the floor, arch lower back off floor, then press lower back into floor. Repeat back and forth. **10 reps**

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How are back sprains and strains diagnosed?

Mild strains and sprains can usually be diagnosed based on a medical history—including a review of the method of injury and the symptoms—and a physical examination by a health care provider. In cases of more severe strains and sprains, especially when there is weakness or loss of function, an X-ray may be taken to rule out a fractured (broken) or herniated (bulging) disc as the cause of the back pain.

How are back strains and sprains treated?

The treatment for strains and sprains is similar, and often done in two phases. The goal of the first phase is to reduce the pain and spasm. This may involve rest, and the use of ice packs and compression (pressure), especially for the first 24 to 48 hours after the injury. An over-the-counter nonsteroidal anti-inflammatory drug, such as Motrin, may be recommended to help reduce pain and swelling.

After the first 24 to 48 hours, returning to normal activities as tolerated is advisable. Prolonged bed rest or immobility prolongs symptoms and delays recovery. Most people with lumbar strain/sprain symptoms improve in about two weeks. If symptoms continue for more than two weeks, additional treatment may be required.

What is the outlook for people with back strains and sprains?

Most people with back strains and sprains experience a full recovery with treatment within two weeks.

How can back sprains and strains be prevented?

It is not possible to prevent all back injuries, but there are some steps you can take to help lower the risk of a sprain or strain:

- Eat a healthy, well-balanced diet to keep your bones and muscles strong.
- Maintain a healthy weight. Excess weight puts added stress on the structures of the lower back.
- Exercise regularly, including stretching, to keep your joints flexible and your muscles in good condition.
- Practice safety measures to help prevent falls, such as wearing shoes that fit properly, and keeping stairs and walkways free of clutter.
- Use good body mechanics when sitting, standing and lifting. For example, try to keep your back straight and your shoulders back. When sitting, keep your knees bent and your feet flat on the floor. Don’t over-reach, and avoid twisting movements. When lifting, bend your knees and use your strong leg muscles to help balance the load.
- Reduce stress. Being under stress causes your muscles to tense, and this can make you more prone to injury. In addition, the more stress you feel, the lower your tolerance for pain. Try to minimize your sources of stress and develop coping mechanisms for times when you feel especially stressed. For instance, perform deep-breathing exercises, take a walk around the block or talk about your frustrations with a trusted friend.

When to call a health care provider?

Call your health care provider if:

- You have pain that interferes with sleep.
- You have severe pain and cannot walk for more than a few steps.
- You have numbness in the area of injury or down your leg.
- You have injured your lower back several times before.
- You have a lump or area with an unusual shape.

Amy Kirkland graduated from the University of South Carolina with a Bachelor of Science, and went on to the Medical University of South Carolina where she earned a Masters of Rehabilitation Sciences in Physical Therapy in 2003. Following her graduation she spent time at the Roosevelt Center in Warm Springs, GA where she gained experience working with spinal cord injuries. She has worked four years in orthopedics with a specialization in sports and spinal rehabilitation. She currently works as a Physical Therapist with Proaxis Therapy in conjunction with the Steadman-Hawkins Clinic of the Carolinas. In her spare time she enjoys running, sports, and Tarheel basketball. Questions for Amy can be directed to kirkland@proaxistherapy.com. Web site: www.proaxistherapy.com.
The Civilian Marksmanship Program supports three-position air rifle matches all across the country. Every year CMP personnel and equipment travel coast-to-coast for these junior events. So it may come as a surprise that a significant three-position air rifle match has never been conducted at Camp Perry, CMP North Headquarters near Port Clinton, Ohio, although at the time it seemed ambitious to plan for 60 competitors in an area where junior three-position air rifle shooting is largely undeveloped.

In November, the Camp Perry Open was announced in CMP’s online publication The First Shot, and it quickly began to fill. Within the first week 20 competitors were signed-up and registrations came in steadily in the weeks leading up to the event. To the pleasant surprise of everyone at CMP the match completely sold-out a week before it began. 60 shooters were entered in the match, with 27 participating in the clinic the night before. Teams not only traveled from Ohio, but also from Michigan, Illinois and even Rhode Island to compete.

Both Precision and Sporter shooters filled the three relays, and everyone participated in a relay final. Scoring was conducted with CMP’s new Visual Image Scoring (VIS) technology that utilizes 8.5 x11 inch scanable 10-bull targets. This new system, called Orion, works by digitizing and scoring the scanned images of the target bulls. The highly efficient program allowed all scoring for the match to be conducted by one CMP staff member, a job that would normally require a large team of scorers. As Orion completed scoring, scores were uploaded into CMP’s Competition Tracker program and posted on the CMP website. This program allows for real-time score tracking during the match so people can follow the match on the range or from home.

As an added, special feature, Orion software makes it possible for athletes to download printable PDF files that show their three-position shot groups together with the scores, tenth-ring scores, X and Y coordinates and radii of each individual shot. Anyone who wants a printout of these scores can click on the total three-position score for an individual shooter and the file will download.

The Camp Perry Open was Orion’s first test in a live competition, though its success had already been proven during the JROTC Postal Competition in December where it was used to score over 16,000 targets. The software again performed with flying colors; the competitors raised very few score challenges.

The day seemed to go very well for the competitors too, as reflected by their scores. Awards were given to the top three individuals on each event, as well as to the top three teams in both Sporter and Precision classes. In the Precision class the top team was Waukegan HS of Illinois with a 2267. Scoring team members were Dana Carpenter, 579, Iris Gordillo, 565, Juan Adan, 562, and Steven White, 561. The second place team was Newport Rifle Club from Rhode Island with a 2137, and third place was awarded to Detroit Sportsmen’s Congress of Michigan who posted a score of 2000. The individual champion in the Precision class was Waukegan’s Carpenter who added a 95.2 final to her 579 to post a 674.2 aggregate. Second place went to Jacob Dame of Newport Rifle Club who shot the high final of the day, 97.7, to finish with a.

The CMP recently established a 20-point air gun range in Camp Perry’s Bataan Armory so that it can host air rifle competitions like the new Camp Perry Open.

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The Civilian Marksmanship Program is seeking qualified individuals to fill counselor positions for its Three-Position Air Rifle Summer Camps. This premier program has a long established history of providing the highest quality air rifle instruction for high school athletes in the country.

Camp counselor positions are open to college students who have completed at least one year of college and are members of an NCAA or college club rifle team. Applicants must be available to work and travel from 24 May-3 August 2007. These are highly competitive positions. Selection will be based on academic performance, shooting experience, coaching and youth leadership experience, and references. A background check is required of all candidates and a mandatory drug test will be performed by CMP on all hired.

Job duties primarily consist of working with groups of five or more high school athletes at five-day summer camps, following a camp curriculum designed by the Director of the Civilian Marksmanship Program Gary Anderson, and modified by Camp Director Dan Durben. Additional duties include range set-up, break down, general clean-up and additional range duties. Counselors will work 40 hour weeks, and will not be responsible for campers in the evenings.

Employment will begin 24 May at CMP South Headquarters in Anniston, AL. This training is mandatory for everyone hired. The camp schedule includes eight full length camps and one advanced three-day standing position camp. The staff will have the week of 17-23 June off to allow counselors to compete in the USA Shooting National Matches. Competing in this event is highly encouraged and CMP will cover ½ of each counselor’s entry fee for the matches. Also staff will be provided housing in Columbus, GA and ½ pay during that week. Counselors will also be allowed to take 7-11 July off and housing will be provided in Columbus, GA during that time for those who request it, but staff will not be paid for that week. A complete camp schedule is provided on page 5.

Job duties include range set-up, helping students load, shoot, reload and score; general cleaning of range; and a variety of other duties. Full-time employment will be available to work and travel from 24 May-3 August 2007. These are highly competitive positions. Selection will be based on academic performance, shooting experience, coaching and youth leadership experience, and references. A background check is required of all candidates and a mandatory drug test will be performed by CMP on all hired.

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