



NRA

Malcolm Cooper—Part III



VOL. 27 NO. 6 JUNE 2014

Shooting SPORTS USA

NRA'S COMPETITIVE SHOOTING JOURNAL

Shooting is
90%

MENTAL

Science proves what coaches
have long taught us.

ALSO FEATURED

Olympian Jamie Gray Retires
Smartphone Anemometers
Garand—Part II

NRA MEMBER EXCLUSIVE
BRAND NEW 2014 GOLD &

**IRA
ELIGIBLE**

2014 \$50 Gold American Eagles
1oz Gold

AT ONLY
1/2%

over our actual
dealer cost*

Plus Express Shipping,
Handling & Insurance

SECURE UP TO
A 50 COIN LIMIT

Accepted
Payment
Methods



WIRED FUNDS



CHECKS



NRA Business
Alliance
The Business of Freedom.



ACCREDITED
BUSINESS

Since 2002



*The U. S. Mint charges a modest premium above the current market price of gold to cover minting, distribution and marketing costs.

Follow Mike Fuljenz



SILVER AMERICAN EAGLES

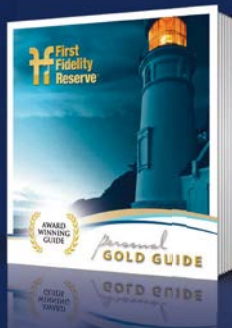
► IRA Eligible ► Gem Brilliant Uncirculated Condition ► Guaranteed & Backed by the U.S. Government

2014 \$1 Silver American Eagles
1oz .999 Fine Silver

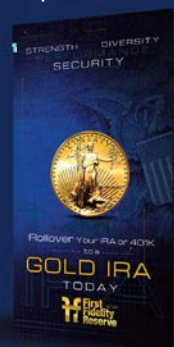
**IRA
ELIGIBLE**



BONUS with purchase



Award-Winning
Gold Guide



Gold
& IRA Kit

Great Quantity Pricing



Call today for great quantity pricing, availability and payment terms on popular investment-grade gold and silver bullion coins.

SHOP
ONLINE AT:

FirstFidelityReserve.com



\$285 Over
Spot Price**
Plus Priority Shipping & Insurance

Limit 3 Per
Household



Check or
Money Order

Prices subject to change • Availability not guaranteed • No dealers please

Coin images are for representation only and not to scale.

Call Toll Free
To Order

1.800.336.1630

00 VAULT VERIFICATION 00
FSSPTGS0614
OFFER EXPIRES 06.15.14

**Spot Price - the daily quoted market price of precious metals in bullion form. Spot price solely determined at time of transaction by First Fidelity Reserve.
Please read important customer disclosures on our website or that accompany products purchased, including arbitration agreement.





DOUG HAMLIN
Executive Director,
NRA Publications

Doug Hamlin to Lead NRA Publications

Douglas J. Hamlin has been named the new executive director of NRA Publications. Hamlin is responsible for the editorial quality and market success of the magazines and related media properties produced by the division and received by NRA's 5 million members. Hamlin succeeds Joe H. Graham who retired after 14 years of service.

"I am very pleased to have Doug Hamlin joining our ranks," said Wayne LaPierre, executive vice president of the National Rifle Association. "Doug has a proven track record of executive level publishing, marketing and sales management and, with decades of professional experience in the outdoors industry and in the publication of specialty magazines, he is eminently qualified to lead NRA Publications into the future."

Hamlin, of Manhattan Beach, CA, was the founder and CEO of autoMedia Solutions, Inc. (ASI), a Torrance, CA-based automotive information services company. ASI owns and operates **automediamedia.com**.

"I am humbled and honored to serve the loyal membership of the NRA," said Hamlin. "My goal for the future is simple: to provide our readers with the finest recreational shooting sports journals and websites in the outdoor publishing industry."

Prior to founding ASI in February 2000, Hamlin spent 14 years at the Petersen Publishing Company serving in numerous sales, marketing and management positions, in both the Los Angeles and Detroit offices. Hamlin was vice president, group publisher of *Motor Trend* magazine from 1995-2000. His responsibilities included direct management for all editorial, advertising sales and circulation functions. Hamlin was also instrumental in the launch of **MotorTrend.com**.

Hamlin served as the publisher of *Guns & Ammo* from 1991-1995. He worked closely with firearm and ammunition manufacturers, as well as congressional representatives, in support of the Second Amendment to the U.S. Constitution, "the right to keep and bear arms."

Hamlin was a U.S. Marine officer on active duty from 1980-1986, and in the Reserves until 1992, attaining the rank of Major. His assignments were with the 1st and 3rd Marine Division as an infantry officer and at Recruiting Station Los Angeles as an officer-selection officer.

Hamlin was a member of the Marine Corps Scholarship Foundation's Board of Directors from 1997-2003, and he currently serves on the Board of Trustees of the Devil Pups Foundation. He earned a Bachelor's Degree from the University of Michigan at Ann Arbor. He is married and has two sons. ©

[Editor's note: Dennis Willing's column returns next month.]

30
mm



EITHER WAY YOU WIN

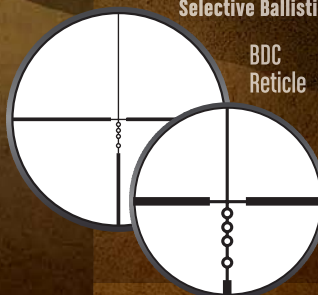
MONARCH 7 4-16x50 SF
CUSTOM XR TURRET



MONARCH

Selective Ballistic Compensation System

BDC
Reticle



CUSTOM
XR
TURRET

Two Choices for Total Precision.

With its Selective Ballistic Compensation System, MONARCH 7 puts both Nikon's Spot On optimized BDC reticle and Custom XR Turret system at your command for instant, repeatable control over the trajectory of every shot. Oversize 30mm main body tube, glass-etched reticle and increased diameter interior lenses offer an exceptionally bright, crisp sight picture and an enhanced field of view. MONARCH 7 Custom XR is the future of long range shooting and heir to Nikon's 97-year legacy of uncompromising performance.

Trust the precise holdover points provided by Nikon's exclusive Spot On optimized BDC reticle for virtually any range.

Dial-in the shot with custom engraved turret based upon your specific cartridge and environmental data.



For full details of the Limited Lifetime Warranty visit NikonSportOptics.com

SPOT-ON™
BALLISTIC MATCH I TECHNOLOGY
OPTIMIZED

16

Olympian Jamie Gray Retires

USA Shooting's Director of Media and Public Relations provides insight into the difficult decision surrounding Jamie's retirement, following her gold medal in 2012.

By Kevin Neuendorf

18

Shooting is 90% Mental—Part 1

Our coaches have been telling us about the importance of the mental game for a long time. With the help of two doctors who are also accomplished marksmen, we inventory the most recent science on the topic.

By Chip Lohman

24

Garand—Part 2

For this second installment, our 1944 Springfield Armory Garand gets a new barrel and a facelift, courtesy of James River Armory.

By Chip Lohman

ON THE COVER



This month's feature on the mental game takes a scientific twist and inventories the latest neuroscience as it relates to the shooting sports.

Cover Photo:
iStockPhoto



A Publication of the
National Rifle Association of America

Wayne R. LaPierre
Executive Vice President

The NRA, the foremost guardian of the traditional American right to "keep and bear arms," believes every law-abiding citizen is entitled to the ownership and legal use of firearms, and that every reputable gun owner should be an NRA member.

Kimber CDP Pistols.

Unequaled Quality. Unmatched Performance.



Easy to carry and conceal, the Ultra CDP™ II .45 ACP has a 3-inch barrel and weighs 25 ounces. It is also offered in 9mm and with Crimson Trace Lasergrips.



CDP pistols have custom features like low-profile night sights and a Carry Bevel treatment for smooth, rounded edges that will not snag clothing or holsters.



An ambidextrous thumb safety promotes fast operation and 30 lines-per-inch checkering on the front strap and under the trigger guard ensures a positive grip.



The Custom CDP™ II .45 ACP has a 5-inch barrel and full-length grip, yet weighs just 31 ounces. CDP models take concealed-carry performance to the extreme.

Built in the Kimber® Custom Shop,™ CDP (Custom Defense Package) pistols combine .45 ACP power and the most important concealed carry features into a light weight, high-performance package that gives them their name. The stainless steel slide plus a match grade barrel and trigger ensure durability and accuracy. Aluminum frames wear the premium KimPro® II finish that is self-lubricating and extremely resistant to moisture and salt. Quality and performance are the true measures of value and Kimber pistols set the industry standard. Nowhere is this more evident than in a CDP. Visit the nearest Kimber Master Dealer and see for yourself.

Kimber®

THE CHOICE OF AMERICA'S BEST

kimberamerica.com 

(888) 243-4522



Kimber offers nearly 200 purpose-built pistols and rifles to meet any need.

©2012, Kimber Mfg., Inc. All rights reserved. Information and specifications are for reference only and subject to change without notice.



30

Malcolm Cooper—Part III

For this final reprinted article, Olympic Gold Medalist Malcolm Cooper shares his experience on how he turned match pressure to his advantage.

By Malcolm Cooper

CONTENTS // DEPARTMENTS

11



4 Competitor's Corner

Updates from the desk of Dennis Willing, Director, Competitive Shooting Division.

10 Shooter's News

Highlights from the world of competitive shooting sports.

11 Bag Check

A mini-series by Barbara Baird, Women's Outdoor News, on tips about what the Pros take to the firing line in their range bag.

14 Score Sheets

Local matches from coast to coast.

15 Product Focus

Here's a look at accurate anemometers that work with your smartphone.

33 A Page From History

Reprints from *American Rifleman* magazine on competitive shooting in the early years.

38 Coming Events

Coming Events lists national matches and provides a download link to the monthly list of 11,000 local matches each year.

39 Member Info



15



PUBLICATIONS DIVISION

Executive Director: Doug Hamlin
Deputy Executive Director: Lourdes F. Kite
Integrated Marketing Director: Marshall J. Flemon
Fiscal Operations Manager: Evelyn Q. Kessler
Executive Assistant: Terri A. Wolfe

Editorial Director: John Zent
Managing Editor: Chip Lohman
Editorial Assistant: Ann Rezelman
E-Media Editor In Chief: Ann Y. Smith

Creative Director: Harry L. Jaecks
Art Director: Susan K. Kilday
Senior Graphic Designer: Jessica Kim
Photography Director: Lloyd Hill
Photographer: Peter Fountain
Associate Photographer: Forrest MacCormack

PRODUCTION AND ADVERTISING OPERATIONS

Director: Michael J. Sanford
Manager: Michelle Kuntz
Marketing Manager: James C. Handlon
Senior Production Coordinator: Debra Oliveri
Production Coordinator: Andrea Myers
Senior Coord. Ad Services: Samantha Brown
Coord. Ad Services: Tiffany Ngu

ADVERTISING REPRESENTATION

Ross Media Group Corporate Office
 (817) 232-5556
President: Gerry Cliff
Chief Executive Officer: Gayle Uzobuife
Sr. Vice President/National Sales Manager: Mike Nelson

Northeast

Tony Morrison (860) 767-9801

Southeast, South Central

Stan Yates (850) 619-8148

Midwest

Gerry Cliff (817) 232-5556

West

Mike Nelson (503) 968-2304

Direct Advertising Sales
 Debbie O'Connell (805) 582-9856

Lillian Cliff (817) 741-0320

Detroit Metro

Dave Irvine (248) 231-2347

Official NRA positions are expressed only in statements bylined by NRA officers or in articles identified as such.

Shooting Sports USA (ISSN 1069-6822) is published monthly by the National Rifle Association of America, 11250 Waples Mill Road, Fairfax, VA 22030-9400; (703) 267-1000. Copyright 2014, the National Rifle Association of America.

To update your email address for the digital subscription, simply re-register at www.shootingsportsusa.com.

No advertised item is intended for sale in those states, or in those areas where local restrictions may limit or prohibit the purchase, carrying or use of certain items. Check local laws before purchasing. Mention of a product or service in advertisements or text does not necessarily mean that it has been tested or approved by the NRA.

All rights reserved except where expressly waived.

The editors are not responsible for unsolicited manuscripts or photographs.

WARNING: All technical data in this publication, especially for handloading, reflect the limited experience of individuals using specific tools, products, equipment and components under specific conditions and circumstances not necessarily reported in the article and over which the National Rifle Association (NRA) has no control. The data has not otherwise been tested or verified by the NRA. The NRA, its agents, officers and employees accept no responsibility for the results obtained by persons using such data and disclaim all liability for any consequential injuries or damages.

MEMBERSHIP ACCT. INFORMATION:

(877) 672-2000

MEMBER PROGRAMS:

(800) 672-3888

SUGGESTION BOX:

E-MAIL US AT SHOOTINGSPORTSUSA@NRAHQ.ORG

50 YEARS LATER AND THE RUGER® 10/22® IS STILL “THE ULTIMATE IN LOGICAL DESIGN!”



RUGER® 10/22®

1964-2014



Limited Time Bolt Marking



"The Ruger 10/22 Rifle • 22LR – Fifty Years • 1964-2014"
Special Receiver Marking

For 50 years, the Ruger® 10/22® has been America's favorite .22 rifle. With proven performance, a legendary action and a renowned, reliable rotary magazine, the 10/22® has inspired a loyal following for a half century. Now, for a limited time, you can celebrate 50 years of the Ruger® 10/22® autoloading rifle. All 2014 production Ruger® 10/22® rifles will feature commemorative boxes, a limited time bolt marking and special receiver marking.

DON'T WAIT! NOW IS THE TIME TO GET YOUR COMMEMORATIVE 10/22®!

RUGER.COM/10/22



©2014 Sturm, Ruger & Co., Inc. 040714



AMU Hosts Army Strong Event



Following this year's Collegiate Shooting Championships at Ft. Benning, SFC Mark Weeks and SSgt Josh Richmond wow the crowd as they make a salad by shooting fruits and vegetables during the 4th Army Strong Experience on March 13. Nearly 1,000 students, teachers and future Soldiers attended.

Latest Member of the National Junior Team



For five years Abby Votava (17) has been competing at the National Junior Olympic Shooting Championships in Colorado Springs, but this time her win not only snagged her a gold medal in Women's Air Rifle, but earned her a spot on the National Junior Team. "It was just like shooting on my home range with my friends!" she said. Hear more from Votava at: <http://youtu.be/NhXMc3mENel>.

State Shooting Champions, Revisited

These Tennessee Conventional High Power champions were inadvertently missing from our April issue. Congratulations to all.

Matt Fitzmayer	786-24X
Frank Van Cleave (Sr.)	767-22X
Brandon Long (Jr.)	764-18X
Clyde Kunz (Reduced Course)	474-17X
Matt Bouldin (Jr.)	464-12X



Taps



Lloyd Hill

Six days shy of his 107th birthday, 1948 Olympian Walter Walsh passed away in his Northern Virginia home on April 29. Since January 18, 2013, Walsh had become the world's oldest Olympian, surpassing gymnast Rudy Schrader. He was also inducted into the USA Shooting Hall of Fame last year. Born in New Jersey, Walsh joined the FBI in 1934. A year later he helped apprehend "Doc" Barker— one of the most wanted criminals in the United States. Walsh joined the Marine Corps during World War II and commanded the Marine Corps Marksmanship Unit for several years.



What's in Your Range Bag, Sarah Scherer?

By Barbara Baird, www.womensoutdoornews.com

When you're related to Daniel Boone, you come equipped with the potential genetics to be a great shot.

Sarah Scherer shoots 10m air rifle and 50m 3-Position. She started training in Colorado Springs at the Olympic Training Center last January and is focused on earning a spot on the current Olympic team. Fresh off the college NCAA circuit from Texas Christian University, this Nutrition and Dietetics major grew up shooting and competing alongside her brother, Stephen, a 2008 rifle Olympian.

"I grew up in a suburb of Boston where I first joined a local junior rifle club. My brother and I participated in their junior program and trained 3 to 5 hours every day. Through healthy sibling competition and rivalry, we helped push each other toward our goals," said Scherer.

She shoots a Feinwerkbau air rifle and an Anschütz .22 rifle. She chose a fūl bag because it is the most lightweight bag she could find in a large size. "Since flight travel is a monthly thing for me, being able to pack efficiently and fit all of my equipment into one bag that weighs under 50 pounds is critical," said Scherer.

What's in your range bag, Sarah Scherer?

- **MOUCHE brand jacket.** "It was the only jacket I found that fit me correctly. It was measured in 15 ways to fit my position and I love it!"
- **KURT THUNE brand pants and AHG gloves, sling and boots**
- **Shoulder-height stand, used to put the gun down between shots**
- **3 different Anschütz buttplates to save time preparing for each position**
- **Padded container for sights**
- **Kneeling roll and pillow**

What she cannot pack in a bag is her attitude. "The very last thing I want to add to what I bring to the range everyday is my faith in the Lord, the support of my family, friends and USA Shooting, and the attitude to be the best I can be and to do my best to help others be their best." If Scherer makes the cut, she will be competing this summer at the World Cup in Munich, the Grand-Prix in Granada, Spain, and the World Championships in Granada, Spain. Follow Scherer on **Twitter** and **Facebook**.



USA Shooting

Partner's Corner

This is a new section of Shooters News where we list companies who display the *Shooting Sports USA* logo and link on their website. In this section, we return the favor. To join the partners list, please contact us using the magazine's e-mail address on page 8. ©

NRA Competitions:	http://competitions.nra.org/shooting-sports-usa.aspx
Berger Bullets:	http://www.bergerbullets.com/links/
Larry's Guns:	http://larrysguns.com/
Ammoman:	http://www.ammoman.com/2a-friends
Black Hills Ammo:	http://blackhillsammo.wordpress.com/tag/shooting-sports-usa/
Pronematch:	http://pronematch.com/category/other/
Krieger Barrels:	http://www.kriegerbarrels.com/
Schneller Manufacturing:	http://schnellermanufacturing.com/
Lee Precision:	http://leeprecision.net/support/index.php?Knowledgebase/Article/View/651/0/industry-news
Shoot VMR:	http://www.shootvmr.com/
Anschütz:	http://jga.anschuetz-sport.com/index.php5?produktID=267&menu=99&sprache=1&produktShow=detail
AmmoSeek:	http://ammoseek.com



NO MATTER THE SACRIFICE,
THEY REMAIN FAITHFUL TO THEIR MISSION.

THAT IS WHY WE REMAIN FAITHFUL TO OURS



MARINE CORPS HERITAGE
FOUNDATION

THE FIRST 200 YEARS OF MARINE CORPS
HISTORY COME TO LIFE IN THE NATIONAL
MUSEUM OF THE MARINE CORPS. NOW
WE MUST COMPLETE THIS NATIONAL
TRIBUTE BY ADDING THE STORIES OF
MARINES FROM 1975 THROUGH TODAY.

TO LEARN HOW YOU CAN HELP COMPLETE THIS MISSION, CALL 1-800-397-7585 OR VISIT MARINEHERITAGE.ORG.

Alabama Indoor BB Gun Championship

Shelby County Shooting Sports Association

Helena, AL

Feb. 1, 2014

Submitted by Sam Richardson

17 competitors

Winner	Hannah Irvin	Maylene, AL	368
---------------	--------------	-------------	-----

Wisconsin Indoor Metric Position Smallbore Championship

Southport Gun Club

Kenosha, WI

Mar. 21-23

Submitted by David Christenson

27 competitors

The Southport Gun Club Inc. hosted the Championship with competitors and teams from four clubs. Congratulations go to Mike Aeberhard of Monticello, WI with a winning score of 1153 and becoming the 2014 Wisconsin State Champion. Mike also shot a 400 out of a possible 400 in the prone stage of the tournament. Second place went to David Wiczorek of Oshkosh, WI with a score of 1121. Third went to Wayne Parrell of Black Earth, WI with a score of 1116.

The other class awards went to the following competitors:

1st Master	Wayne Parrell	1116
1st Expert	Michael Brittan	1102
1st Marksmen	Jeremy Graves	1104



Michael Aeberhard
2014 WI State
Indoor Champion

Tennessee BB-Gun Championship

Bend of the River Club

Livingston, TN

Apr. 19

Submitted by Charlie Pardue

70 competitors

Due to the every-other-year rule, some shooters were not eligible for awards but have their own class. This year's winner was Josiah Spickard with 455. Shepherd was second with 445, Haley Melton was third with 439 and Zeb Avery was fourth with 373. ☺

Winner	Daniel Brown	455
2nd	Anna Brown	452



Pocket-size Anemometers

Aside from the debate on whether to read the wind at the firing line, midpoint down range or from the mirage at the targets, most shooters agree on using some form of wind gauge. Whether you use a piece of yarn tied to the spotting scope or a full-fledged weather station with wet ball humidity data and altitude readings, only indoor marksmen have escaped the wrath of the wind gods. A high-end Kestrel handheld model, for example, can cost more than \$300. The new smart phone models, on the other hand, are very accurate, sell for \$34.95 - \$70 and offer more features than bargain basement handhelds, like saving location/speed data and reading wind direction from the magnetometer in the phone.

In the last few years, smart phone anemometers have become popular with outdoor sportsmen such as day sailors, kite flyers, remote-control model pilots and hunters. Both the WeatherFlow and Shaka models employ a network of distributed users whose wind readings are plotted on websites such as Sailflow and WindAlert for all to see.

Review comments from in-house staff included "convenient," "affordable"

and "accurate." Watch this WeatherFlow video to see just how accurate they are: <http://vimeo.com/74974334>. And because most models use sensitive, jeweled bearings, the protective box/case that comes with the WeatherFlow model is a desirable feature.

Whether you like the idea of propping your phone and wind vane against a scope stand with sound muted is a personal choice. Having one of these meters stashed in a range box for recorded/archived wind speed and direction might make more sense than a \$300 model used by only the most discerning wind shooters. This new genre of gauges does require a smart phone and a downloaded, free "App," so those of you still holding on to your Motorola flip phone will have to wait a little longer before you can order pizza from the ready area, while recording the wind speed (average and gust), wind direction and location. Want to impress? Begin posting your local wind speed via Twitter, SMS, e-mail and Facebook.

Other models don't seem to have quite the feature-per-dollar bragging rights as the \$34.95 **WeatherFlow**. They include the \$50 **Vaavud** that uses a larger wind vane: and the \$70 **Shaka**.

If you have a favorite ballistics application, contact the developer and request they support these devices. ☺



► WeatherFlow

Olympic Gold Medalist Jamie (Beyerle) Gray.



Injury Forces Olympic Gold Medalist **Jamie (Beyerle) Gray** to Retire

BY KEVIN NEUENDORF

There comes a time in every elite athlete's life where they eventually succumb to the pain they place upon their body to perform the sport they love. That day came in April, 2014, for reigning Olympic gold medalist Jamie (Beyerle) Gray, Lebanon, PA, as she reluctantly retired from her competitive rifle career. No doubt the gold medal she earned in London helped make the decision a little bit easier. But more than that, Gray wasn't willing to forego her long-term health for the opportunity to continue shooting.

Since 2010, Gray has tolerated lower back pain that was unbearable at times and something that worsened each time she put in the training necessary to compete. "It has taken a toll on my body, mind and life," Gray acknowledged. "At the Olympics, I had three injections in my back after the air rifle match, which allowed me to compete in smallbore."

USA Shooting Team Physiologist Cathy Arnot described her condition like this: "She essentially has the wear-and-tear on her spine that could be expected of a 70-year-old woman." Arnot describes the injury as a degeneration of the facet joints located on both sides of the vertebrae. An MRI taken during the Olympic Games showed tearing and degeneration of the cartilage along several facet joints and a bulging disc. Just prior to her gold-medal performance in London, she received a cortisone injection without any anesthesia, at Gray's request, to relieve the pain.

Gray took a year off after London in hopes that the rest would rectify the problem. But when she picked up the gun again last October, the pain returned. The orthopedists and neurologists that evaluated her came to the consensus that if she continued to compete, the degeneration would worsen, leading to daily pain and early arthritis of the spine. According to Arnot, her only alternative was a surgical fusion of her spine, but with no guarantee she'd be able to realistically compete afterwards.

"Jamie is one of the toughest competitors I have known in 23 years," said U.S. Olympic Committee Sport Psychologist Sean McCann. "Her toughness will be useful now as well. Ending an Olympic career early due to injury is one of the most difficult challenges an elite athlete faces, and it is especially hard if you know you are one of the best in the world. Although Jamie accomplished so much in her career, she had much more left in the tank, and it is very tough to leave a competitive life when you love competition as much as Jamie. All retiring Olympic athletes miss the focus, intensity and single-minded purpose of the athlete's life. The challenge for

Olympians in transition is harnessing their drive and talents to succeed in a post-athletic career.”

“This sport has been part of my life since a very young age and has taught me so much,” Gray said. “USA Shooting has showed me immense support since I was 17, and I learned there is more to the Olympic movement than just the athletes. I have made shooting into a career and couldn’t have done that without the support of USA Shooting.”

Collegiate teammate and best friend Matt Emmons—a three-time Olympic medalist, says for all that the sport has given her, she too has played a part in giving back to the sport. “Jamie would tell you that she wasn’t the most talented shooter, but she was super motivated, focused, and worked harder than just about everyone,” said Emmons.

Gray is a two-time Olympian who shook off bitter disappointment in 2008 to earn her way to the top of the podium in 2012. In Beijing, she missed a medal in both Air Rifle and 3-Position by 1.8 points. Over the 120 shots fired, that’s the equivalent of $\frac{1}{4}$ inch (the size of a pencil eraser) between medal and no medal. Long considered one of the top rifle shooters in the world, Gray finally earned that recognition on the sport’s biggest stage at the 2012 Olympic Games in London. After an impressive run of making the finals in each of the four Olympic events she competed in, she finally climbed to the top of the podium and, in that instant, all the work and sacrifice was justified.

“Jamie went through extremely tough physical challenges on the road to her fourth and fifth-place finishes in Beijing that would have retired most athletes,” said Jamie’s coach, mentor and now USA Shooting Operations Director, Dave Johnson. “After painfully just missing the podium in China and overcoming those obstacles, Jamie briefly grieved and then went back to work on setting herself up to win in London.”

Gray talks about that moment in London when she was able put all her training and sacrifice together to complete her goal. “It was a dream come true to stand on the top of the podium

representing the United States and hearing our national anthem being played. Winning at the Olympics is something I had worked toward since I was 15 years old, and that moment and the entire match will never be forgotten. It was such a blessing to celebrate with coaches, teammates, friends, family and sponsors that helped me get to that moment.”

According to Johnson, Gray’s success was based on two key ingredients of elite-level achievement in any walk of life: The discipline to put the hard, often monotonous work in, and the dogged determination to reach her goal. “Jamie’s legacy, in my view, will be that there are no shortcuts. There are many very tough challenges on the road to reaching tough goals, and that you don’t leave stones unturned,” said Johnson. “She always sought improvement in a logical and methodical way. She had a deep focus on those skills she wanted to improve, not just the easier or already mastered parts of her performance. She was never one to let a weakness go unaddressed and never assumed she had the answer to everything, even as she reached higher and higher levels of performance. She challenged the coaches to maximize what they had to offer and then she put the training to work.”

Other highlights of her career include winning the NCAA Rifle Championships both as an individual and in the team event. She was a big fan of team matches throughout her career and, thus, those stick out in particular, including the 2010 World Championship team bronze in air rifle as well as team gold in smallbore. ©

Coach Johnson congratulates Gray's winning performance of a 99.9 finals score in the 50m Rifle 3-Position event.



USA Shooting

Shooting is
90%

MENTAL

BY CHIP LOHMAN, MANAGING EDITOR

CONTRIBUTING EDITORS:
DR. JUDY TANT AND DR. MIKE KEYES



iStockPhoto

PART 1 OF 2

We've learned more about the brain in the last five years than the past 5,000. Here are several areas of neurological study that offer new perspectives on established training regimens.

We generally agree that “shooting is 90 percent mental,” but apply it in very personal ways. When a coach emphasizes the need to focus, for example, one shooter’s interpretation may be to bear down and think harder, while the next may visualize “living in the moment” and relaxing.

This article touches on recent studies in critical thinking, brain fitness and even modifying the brain (plasticity) from the perspective of shooting sports. Drs. Judy Tant and Mike Keyes help interpret some of the more complex clinical findings and share their own experiences, as they are both accomplished shooting athletes in their own right. [See endnotes for their biographies.]

From Dr. Keyes:

“I think you have a very good article in the making that combines your previous interviews, the Navy SEAL study, and the latest knowledge on training and teaching. The crux of the article, that you have to train for competition, has been out for decades, but modern science has both verified and localized *how* this is accomplished.

“I was especially interested in what Ernie Vande Zande, Lanny Bassham and Lones Wigger said in your referenced articles, since I met them on a number of occasions at Ft. Benning and had a chance to talk with them and watch them shoot. I’ve also been following the Doug Koenig TV show and it is clear that he has very actively dealt with match pressure by training for it.

“One of the important points for your readers is that each of these shooters has a very personal approach *that might not work for others*. The basic principles of determining your reaction to stress, finding a set of specific answers that work for you and practicing them both in matches and on the practice field hold up throughout the interviews.

“At the very highest levels, the problems of learning to shoot and how to deal with match pressure have been solved, more or less, but in order to achieve this level, the resolution of these issues has to have been worked out in a deliberate, layered manner that sets a solid base for the next level. Talent, i.e. a set of physical, mental and psychological attributes that give the shooter a step up on the ladder to success, has a place, but mostly this is a starting point. It takes hard work—work that is specific to the training task, to improve to an elite level. This is the “ten thousand hours” that you read about, and it can’t be a random amount of work. It has to be focused and deliberate, which means that when you train you have to have goals and a good idea about what is going to help you.

“After a while, the very best shooters have a good idea about what is needed to succeed and their analytic abilities are at a peak. But even the very best can be assisted by a good coach who can help with that incremental increase in training that might make all the difference in the rarified competition that marks the very best. The bottom line is that you have to work in order to succeed and you have to have the right kind of work, or you are wasting time. If you don’t have a good base of training, all the talent in the world will not help at the edges of your talent when stress becomes the most acute.

“In retrospect, I realized that shooters like Lones Wigger and Lanny Bassham had these skills and I know how hard they worked at improving them every day. What we didn’t have back then was a broad knowledge and good methods to make sure that every shooter had access to what has to be done in order to be the best. The hard part is still the amount of work that has to be put in, but now we know more about the *direction* of that hard work.”

...each shooter has a very personal approach that might not work for others.

MATCH PRESSURE

Observations:

When we're not *expected* to do well, we often shoot to our full potential. Dr. Judy Tant mentioned this in her November 2009,

interview with *SSUSA* when she reflected:

"I discovered that, because I had been doing well, I felt like *I had to do well*." On the other hand, during Jock Elliott's series on *How Not to Crack Under Pressure* [see endnotes], in anticipation of a lengthy interview with National Rifle and Pistol Champion Carl Bernosky, he suddenly found himself with plenty of spare time when Carl answered: "I just never thought of shooting as being all that difficult." So it's important to reflect on our *perception of pressure*, to understand how to manage it.

From Olympic Gold medalist Lanny Bassham: "Here's a myth—Pressure causes performance to drop. Pressure does not cause your performance to drop. What I learned about pressure was that when you feel the physical effects of pressure, it's real. You feel an adrenaline rush and your heart rate and blood pressure go up. I've seen shooters shoot extremely high scores with their legs shaking. Pressure doesn't cause your scores to go up or down, but your *attitude* does. Your attitude is what's important."

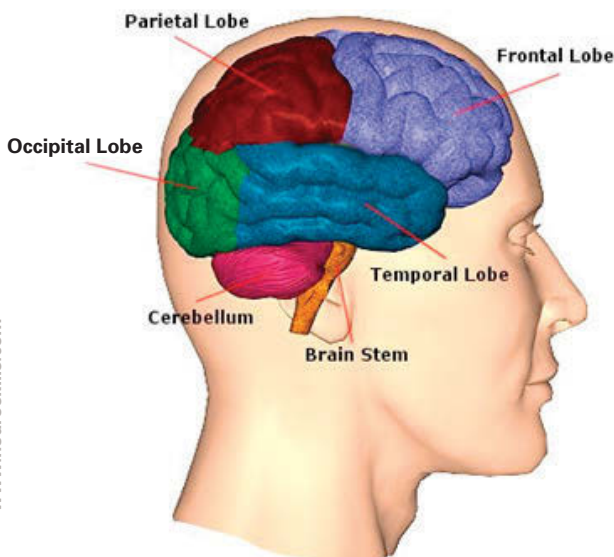
Research:

Navy SEAL Study on Working Through Fear

Having doubled in size during our evolution, the brain weighs less than five pounds, yet consumes nearly one fourth of our body's energy. According to Eric Zillmer of Drexel University, we can compare our brain's structural evolution to an old house, with additional rooms added over time. The original "house" was simply the brain stem, sometimes called the reptilian brain. We know that this part of the brain governs automatic functions like temperature, heart rate and the instinct to flinch from loud sounds—things that happen without having to think about them. Fast forward a few hundred thousand years when the next "room" was added to the brain—the cerebellum, where procedural memory (learned activities) is stored.

During this same evolutionary era, scientists believe the next room created was the amygdala, [a-mig'-de-la] near the brain stem, which is responsible for emotions, including fear. So if a bad "case of nerves" is embedded in the oldest part of the brain, how then are we able to control these ancient instincts?

Navy SEAL training has drawn from neuroscience for special techniques to help recruits change the way they react to the extremes they will face in combat. The principle goals of this training include: Goal Setting, Mental Rehearsal,



...master shooters have created signals in their frontal lobe that are strong enough to override instinctive distractions from the earliest parts of the brain.

Self-talk and Arousal Control. Sound familiar? These same themes are found in shooting sports literature, but perhaps not in the same context as found in recent neuroscience research.

Through repeated exercises, the U.S. Navy *conditions* recruits to control their reactions to the natural fear signals initiated by the amygdala. Practice (repetition) helps control or even suppress our instinctive reactions that detract from shooting well. Or, perhaps the repetition helps us view these fear signals in a non-threatening way—to accept them as a natural consequence of our competitive sport.

Navy SEAL training also seeks to replace panic, a lack of preparation for the brain's "fight or flight" alarm, with rehearsed options, an approach presented by National Small-bore Champion Ernie Vande Zande in his November 2011 interview where he reflected: "Back in high school, I felt that pressure was normal. I started noticing in speech class that sometimes I got pretty nervous, but I didn't get nervous every time. Over time, I realized that I became more nervous on days when I gave a speech when I felt *less prepared*. I started thinking about that in relationship to my shooting. It was the same kind of thing: At those times when I wasn't prepared, I felt more nervous."

This *learned* behavior, goal setting and problem solving occurs in the most recent "room addition" to our brain—the frontal lobe, located just above our eyes. Science explains that master shooters have created signals in their frontal lobe that are strong enough to override instinctive distractions from the earliest parts of the brain. Yet these frontal lobe signals are much slower than those of the ancient brain.

Self-talk can also help to override fear from the reptilian brain. According to History Channel's movie—*The Brain*, the average person speaks to himself at a rate of 300 to 1,000 words per minute. If these messages are positive, then these "signals" from the frontal lobe help override any fear signals coming from the brain's center.

For arousal control, Navy SEAL training focuses on breathing. Long exhales mimic the body's relaxation process, delivering more oxygen to the brain for better performance. So science teaches us what our coaches have been telling us all along: Slow breathing helps diffuse pre-competition nerves.

From Dr. Tant:

"Even the notion of 'match pressure' is variable. If you saw 50 guys on the line, you might think they were aiming for the same thing (the 10-ring, of course), but if you had a psychological X-ray machine to look inside them, you would find a whole kaleidoscope of motivations, emotions and reasons for being there, ranging from run-of-the-mill fear of failure and determination to shoot well, to the sheer joy and gratitude about being a free people with the Second Amendment protecting us (so far). I guess this is obvious, but it is easy to assume that the other guy sees things the same way we do. I love it when shooters approach me about their mental game and I get a peek at what makes them pursue the sport.

"When I look at my own mental game, I can see that my ability to focus intently is at the core of it. I'm one of those shooters whom Dr. Keyes refers to as 'self-selecting' on that variable. I've never had much trouble sitting still and paying attention for long periods of time, and my profession has honed this ability through thousands of hours spent listening to my patients. Plus, I seem to be able to look inward to note what is going on in my mind and also sense what my body is doing and feeling, which is helpful when I'm trying to figure out what just happened to a shot. Some of this comes naturally I think, but again, my work as a psychotherapist helps. (Tracking my own thoughts and emotions helps me track and reflect on my patients' experiences. A classic example is feeling suddenly sleepy in a session and using that clue to locate what a patient is blocking, consciously or not.) Having this internal 'data' gives me the foundation for experiments and adjustments to my game on an ongoing basis.

For instance, I have noticed that my brain knows to not pull the trigger if my conscious mind isn't on the topic of executing my shot plan. Sometimes I don't realize that I have been saved from myself until after I've lowered the pistol, abandoning the shot, and it comes to me that my mind had slipped off somewhere. So, I've learned to trust my (unconscious) mind to make decisions for 'me.' I find this analytic, problem-solving process endlessly fascinating. Some shooters are far less interested in it—another of those variations among us—and for others, their access to it is lessened either by their upbringing or lack of practice.

"Another component of my game is clearly relational in that it occurs in a group context. I have performed at my best repeatedly when shooting for a team. My favorite example of this was shooting my personal best with hardball .45 when I was 'burned' as a new shooter on the Michigan State Team at the National Trophy Team Match at Perry in 2003. [Editor's note: Team rules require that one or more on the roster is a new, "tyro" shooter. A "burned" shooter has shot on a team previously and is no longer a tyro.] Another was being 'high man' on the Springfield team when we won the center fire team trophy at the Nationals at Perry in 2011. (Or maybe it is just being at Camp Perry that does it?!) There is something about being part of a team that helps me settle down and get on with it—as a sense of security, support, having a shooting 'family' that diffuses negative pressure and channels my energy effectively. I know I'm not unusual in this.

"Finally, I am convinced that my early experience performing as a flutist has helped my bullseye shooting, not just because of the need to activate fine motor skills on demand, but also because I had to deal with being watched while doing it. This goes to the basic notion that repeated exposure to stress, given adequate preparation, helps develop resilience in the face of it. I sympathize with shooters who say they hate shooting alibis or being the last to finish a slow-fire string because then others will be watching them. When I ask what they dislike about it, they

always mention worry about being judged negatively. I've worn out that worry pretty much and have come to think of those situations as quiet time (for alibis at least). And I'm pretty sure that what the watchers are thinking is, 'I'm glad it's not me!'"

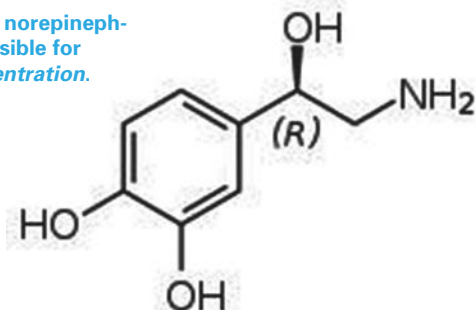
PERFORMANCE ANXIETY

From *The Brain*, "Performance anxiety is the largest culprit of poor athletic performance." In the Navy SEAL study, recruits were taught that performance anxiety is simply their fear of losing. Stated another way, it is when the amygdala wins. The SEAL study concluded that shooting an assault rifle is a low level activity and under these circumstances, the frontal lobe should just be turned off. Sound familiar? In her interview, Olympic Rifle Gold Medalist Launi Meili called it being "in the zone." It has been said that sports success is the ability to modulate the brain by balancing fear with strategy, and the trained ability of the cerebellum—sometimes referred to as "letting go when it counts."

QUIETING THE MIND

The autonomic nervous system controls several functions unconsciously, such as heart rate, respiratory rate, pupillary response, etc. This "auto-circuit" causes us to flinch when first learning how to shoot, or to blink when a rock hits the windshield, before we're even aware of the threat. This same part of the brain controls the much broader reflex known as the "fight-or-flight" response for superhuman effort. Included in this "blitz" of neuro responses is the release of hormones, specifically—norepinephrine—responsible for *vigilant concentration*. Sounds appropriate for a competitive shooter, doesn't it? Norepinephrine also affects the area of the brain where attention and responses are controlled. Unfortunately, this "all hands on deck" reaction of the body against a threat includes a rise in

The hormone norepinephrine is responsible for vigilant concentration.



heart rate. As one report put it, the fight-or-flight reaction “bypasses our rational mind,” which is clearly not appropriate on the firing line. Or is it? In Jock Elliott’s series *How Not to Crack Under Pressure*, experienced competitors explained that shooting lots of matches helped them feel less threatened when walking up to the firing line—that there was no saber-tooth tiger that required a full-on, flight-or-fight reaction.

So how can we selectively cause this hyper concentration on demand, without a rapid pulse? As Lanny Bassham was quoted previously, your attitude toward the physiological reactions to stress hormones may determine whether you perceive the match as positive or negative. The fear component of fight-or-flight prepares you to do just that—stand your ground or run like the wind. But a positive “hyper-interest” in a subject, without fear, can trigger a clear mind rather than panic. Pick a hobby: Preparing your vintage car for a show by meticulously removing every speck of dirt; achieving wonderful lighting for a photograph; or hitting a perfect note on a violin that has no frets. These require your full attention, without attaching fear to the experience.

We’ll complete Part 2 next month with more insights from Drs. Tant and Keyes. ©

ENDNOTES

Contributing Editors:

Dr. Judy Tant, Clinical Psychologist and National Bullseye Pistol Champion

Dr. Tant has been the National Woman Bullseye Pistol Champion eight times since 2003 and has been the Michigan State Indoor, Outdoor and Service Pistol Champion numerous times as well as the Michigan Woman Champion twelve times. She currently conducts her psychotherapy practice in East Lansing, MI. Here is her 2009 interview with *Shooting Sports USA*: www.nxtbook.com/nxtbooks/nra/ssusa_200911/index.php#/12.

Dr. Michael J. Keyes, Psychiatrist and former physician for the U.S. Shooting Team

Dr. Keyes has written 200+ articles on mental training for *Shotgun Sports*; authored *Mental Training for the Shotgun Sports*; and is a former Tennessee State Pistol Champion and coach of several national championship teams. He currently conducts his medical practice in Fond du Lac, WI. See two of his articles here: www.shotgunsportsmagazine.com/mental.html; <https://sites.google.com/a/mikekeyes.com/www/yips>.

Reference Books, Videos and Articles:

Your Brain at Work, by David Rock

With Winning in Mind, by Lanny Bassham, Olympic Rifle Gold Medalist

Train Your MIND Change Your BRAIN, by Sharon Begley, Senior health & science correspondent, Reuters

Mindsight, by Daniel J. Siegel, M.D.

Unlocking the Emotional Brain, by Bruce Ecker, Robin Tieie & Laurel Hulley, Routledge

Your Deceptive Mind: A Scientific Guide to Critical Thinking Skills, from The Great Courses, by Professor Steven Novella, Yale School of Medicine

PBS Home Videos:

The Brain Fitness Program

Brain Fitness², Sight and Sound

The Brain, History Channel: www.youtube.com/watch?v=1imN6oc_YtU

I Deserve to Win: www.youtube.com/watch?v=tne-WKV8jDI

Shooting Sports USA series on coping with match pressure:

Part I: www.nxtbook.com/nxtbooks/nra/ssusa_201109/index.php#/22

Part II: www.nxtbook.com/nxtbooks/nra/ssusa_201110/#/22

Part III: www.nxtbook.com/nxtbooks/nra/ssusa_201111/#/22



Our 1944-issue, Springfield Armory

BY CHIP LOHMAN, MANAGING EDITOR // PHOTOS BY FORREST MACCORMACK, PETER FOUNTAIN AND



Armorer Wendy Hicks begins the restoration by removing the old Parkerizing with a blast of glass beads.

In our **first installment**, we reviewed the early history of the World War II Garand rifle, its inventor and the purchase of our military surplus project gun from the CMP store in Anniston, AL.

For Part II, we returned to **Mark Hartman's James River Armory** for a professional inspection, overhaul and refitting. Hartman has assembled a dedicated team of artisans to manufacture guns like their AK Series by utilizing original "demilled" parts kits as the core of the rifle. James River also builds Rockola M14s and M1 Carbines and offers expert, historically correct firearm restorations. Rest assured that Hartman will be the first to refuse a restoration project if he determines it would diminish the gun's value.



RAND

ory Garand receives a professional facelift and a new barrel.

D CHIP LOHMAN

PART 2 OF 3

The three-week restoration of our Garand began with disassembly and a trip to the bead-blasting tank to remove the old finish, minor scratches and any oxidation. The material used in this step (180-mesh glass beads) does an excellent job of cleaning the metal without defacing the original serial number stampings and manufacturer's marks. Once the parts have been inspected "in the white," the next phase is period-correct Parkerizing for all but the stainless steel gas tube, which requires a special bluing treatment to adhere properly. While most of the Garands sent to James River have stainless steel gas tubes, a few are the older, iron version and can be Parkerized. Also called phosphating, Parkerizing is commonly used as a more effective



Here, parts "in the white" are devoid of Parkerizing and any oxidation. Note the special tool in the foreground, required to remove the forehand stock clip without breaking the wood.

FEATURE // GARAND

(r.) An advantage of a professional restoration is access to a full inventory of spare parts.

(middle) James River Armory has contracted with a stock supplier for quality American walnut stocks that offer very precise tolerances for improved accuracy.





Owner Mark Hartman (l.) presents the finished Garand to the author.

Peter Fountain

alternative to bluing, but it can only be used on ferrous metals.

Once the metal work has been refurbished, all parts are reinspected and assembly begins. Here, the armorer will install a new mainspring and buttplate and replace any worn, broken or unsafe parts with new stock from their large inventory of spares. Some common weaknesses identified at this stage are extractor springs, worn bolt lugs and muzzles and receiver throats that don't gauge adequately. This stage is where professional, experienced restoration can surpass do-it-yourself projects, unless you enjoy the flea-market aspect of hunting for correct spares and replacement parts.

James River Armory's online store offers customers the option to re-use their original stock and barrel or purchase replacements at competitive prices. We opted for replacements for improved accuracy. While a new stock looks nice, the close-tolerance inletting should also help shrink .30 cal. groups fired at 200-yard "as issued" matches. (Watch for Part III in the series for final accuracy tests.) CMP rules don't allow bedding the action or the barrel, but there's no restriction against a perfect fit between the action and stock. Once refurbished, our "new" gun was very tight.

With the fire control components restored to "as issued" condition, the armorer will next retrieve the specific American walnut

replacement stock set that has been cartouched to correspond to your gun's serial number. James River owner Mark Hartman is an enthusiastic history buff, which is demonstrated in the detailed authenticity of his company's restorations.

The next phase of the restoration is for the boss (Hartman) to test fire the gun and zero the sights. As purchased from CMP (and typical for many Garands), our barrel had been replaced since it was first issued in 1944. Consequently the throat and muzzle were in adequate, but serviceable condition. Because of our plans to compete the Garand, we ordered a replacement Criterion barrel (formerly a division of Krieger Barrels, Inc. and now a separate company) with proper G.I. contour that meets "as issued" rules.

The final stage of a James River restoration is finding a lens wide enough for the owner's smile. Whether it's the aroma of the fresh walnut stock, the sound of the steel bolt being cycled, or the perfectly finished steel, the final result is a thing of beauty and a piece of American history for generations to come.

James River Armory

Hartman's crew is a regular at SHOT Show and has generated a lot of customer interest in the company's custom-fabricated Rockola M14s and M1 Carbines. Machined from 8620 billet steel rather than cast, these rifles haven't been



BEFORE



AFTER

Which Oil is best fo

LINSEED

Linseed oil comes from pressed flax seeds grown in central Europe and Asia. The term “boiled” (as found in hardware stores) is a misnomer since boiled linseed oil includes added chemicals for faster drying than raw linseed oil.

Linseed oil is generally easier to apply than Tung oil which is non-toxic and creates a soft (rather than glossy) finish. While it is easy to touch-up, linseed oil provides no significant

barrier against scratching or moisture as does varnish. With the exception of the first coat, sanding is unnecessary with boiled linseed oil.

Linseed oil is highly flammable and poses a fire risk with rags that can combust spontaneously through oxidation. Leave used linseed rags unfolded and flat in a well-ventilated area.

Through experimentation, the author learned to let each coat stand for 40 minutes, followed by a “light mopping” to remove any standing,

manufactured this way since 1945. **Read here** for the interesting role the Rockola company played in the U.S.' call to arms during World War II.

When his suppliers could not keep up with James River's customer demands, Hartman decided to make the plunge and purchased CNC machining centers to fabricate his own inventory of hard-to-find parts. From Hartman: "You can make all the detailed measurements you want and program them into the machine, but at the end of the day, it's the final fit and

finish that determine success. It took a while, but we broke the code."

For more information about James River Armory and the products and services offered, go to: **www.jamesriverarmory.com**.

By the time this issue is published, we will have shot in the CMP Eastern "as issued" matches at Camp Butner, NC. Watch for the final instalment on reloading recipes and shooting the Garand in competition, later this summer. ☒



Owner Mark Hartman invested heavily in his own CNC machining centers when suppliers could not keep up with his customer's demands. The result is the ability to make his own precision parts (inset) for guns that haven't been manufactured for nearly 70 years.

r stock refinishing?

wet oil. While you don't want to rub off all the oil, leaving the entire wet coat on the stock will require weeks to dry. (Yes I did, and now I know.) The "light mopping" method dried in a 70-degree room at 35 percent humidity within 48 hours and was ready for light buffing and the next coat.

TUNG OIL

Tung oil comes from the nuts and seeds of the Tung tree, which is primarily found in China.

It usually takes four or five coats of Tung oil, sanded after each, to get a satin sheen. The surface will be rough and spotty until this point. That's why you have to sand Tung oil to produce a shiny finish.

Unlike a hard varnish finish, these oils must be reapplied fairly often. For detailed application instructions and a kit for sale with either oil, see: **www.garandgear.com/new-finish-for-your-m1-garand**.

MALCOLM

TURNING MATCH PRESSURE

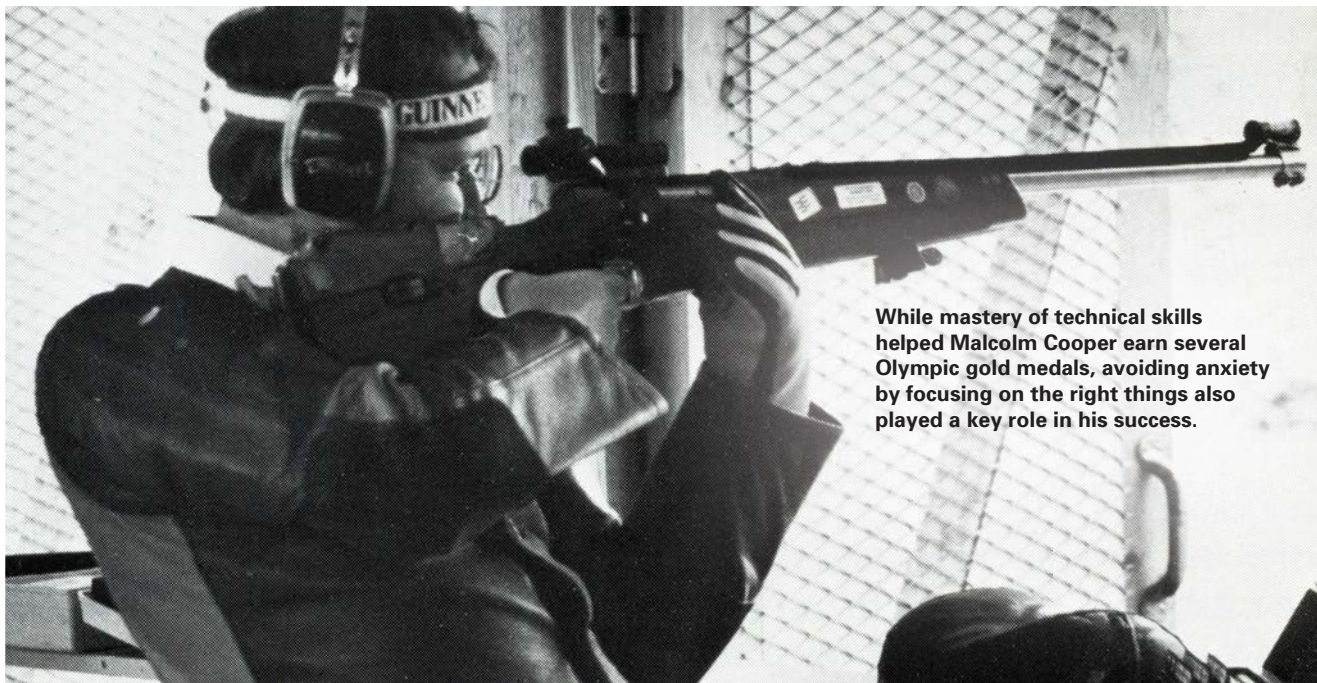
Editor's Note: See Part I in the January 2014 issue and Part 2

Match pressure is something all shooters face. What counts is how we react to it. Whenever I've felt pressure for any reason at a match, I've always turned to face it. I have even sought to expose myself to pressure as much as possible. Pressure is a condition that causes adrenaline to be released

into the body. Adrenaline is a compound that has several physiological effects that prepare the body for action. Many describe the effects as preparing the body for "fight or flight," that is to either physically fight or to run from danger. Many shooters believe that adrenaline is destructive since it creates a strange or uncomfortable feeling. But a certain amount

of adrenaline can actually be helpful. I often shoot with high adrenaline. Sometimes I even finish a match with a headache from its intensity. I believe I perform at my best with my adrenaline pumping, since it heightens my senses. I see better, I feel better, and my reaction time is quicker.

With adrenaline there appears to be increased muzzle movement,



While mastery of technical skills helped Malcolm Cooper earn several Olympic gold medals, avoiding anxiety by focusing on the right things also played a key role in his success.

NRA File Photo

MALCOLM COOPER

PREPARE TO YOUR ADVANTAGE

BY MALCOLM COOPER

2 in the March 2014 issue of Shooting Sports USA magazine.

which most shooters attribute only to an increased pulse beat. Your heart rate does increase with adrenaline, but if your technique is good, there is no significant increase in movement from the pulse beat. It is just that the adrenaline is letting you see better. Most of the movement is always there, but it can't be seen as clearly. If you do see an increase in movement, that is OK. In fact it's good. It means you are seeing well. The problem is when that perceived increase in movement makes the shooter anxious and that *anxiety* leads to the release of too much adrenaline. Trouble can begin at this point because the body comes right up to a razor's edge, and equilibrium is easily disturbed. That anxiety, though, should never be experienced if one is confident, uses positive thinking and pays really good attention to the job at hand. Such anxiety is caused only by negative thoughts, which can be controlled with adequate mental training.

As you practice, it is hard to put pressure on yourself and create the same situation that you will face in a match. When I was learning to compete, I would often seek a pressure situation so I could perform at my best. I would use a pressuring device such as needling my friends that I would do better than them or bragging that I would shoot a difficult score. Before any match, I psych myself up to perform at my best and get my adrenaline at the necessary level. If, after one position, I feel dull and want to be picked up, I look at the scores my competitors are firing and ask what score I need to win. This will create tension and give me the necessary lift I need. All it's for is to heighten the senses.

There is no other pressure for me like shooting in the Olympics. The world championships do not create the same kind of feeling. Even after four Olympics, I still sometimes have butterflies before I start. But once I start, I funnel my

energy and focus my mind on the job at hand. I must be totally focused on what I am doing in the match. At this point it is critical that I have no negative thoughts to push the adrenaline level up too much. I just use what's there from the excitement of the match.

The key to this is that whenever I shoot, I keep my attention on what I am doing and let the score look after itself. If I control my thoughts on each shot, there is no time to calculate scores or work out where I will place. It is no good wishing for 10s and having my attention on the target. My attention must be 100 percent on what I am doing. I am the *launching pad* for the shot. The target is simply the vehicle to show I've performed correctly.

By facing pressure whenever you feel it, you can learn to use your heightened senses and the related feelings that adrenaline brings. Learn to shoot under these conditions, always being careful to focus entirely on the task at hand and avoid negative thoughts. ©

Shoot ⊕ Hunt ⊕ Hike Bike ⊕ Ride ⊕ Escape

Nestled in the foothills of the Sangre de Cristo Mountains, the **NRA Whittington Center** is America's premier outdoor recreation destination, offering state-of-the-art shooting ranges and fun for the entire family!

www.nrawc.org ⊕ 800-494-4853

**NRA
WHITTINGTON CENTER**
EVERYTHING OUTDOORS

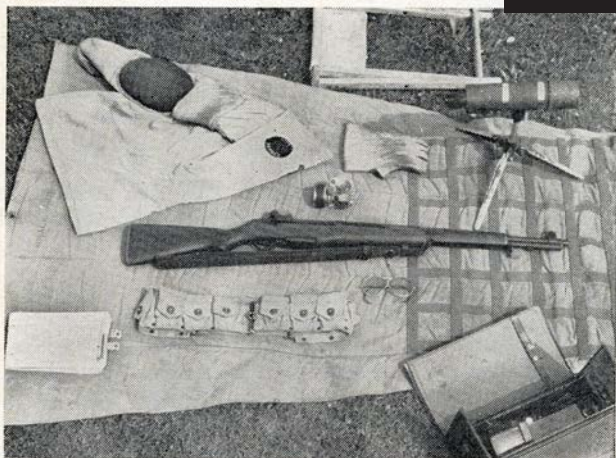
*Come experience the magic
of the Old Santa Fe Trail.*



RATON
NEW MEXICO
www.explore.raton.com

NRA Whittington Center is a 501(c)(3) non profit organization operating solely on donations and range and program fees. See our website to become a Whittington visitor and supporter.





Typical high power rifle shooter's gear: stool, coat, glove, scope, carbide lamp, rifle, dope book, belt, glasses, shooting kit, and a shooting mat



A convenient prone set-up: scope near left elbow, elbows on shooting mat, shooting kit and dope book close to right hand

PART I

How to Shoot the High Power Rifle

Nowhere else in the shooting game can you get such spice and variety

By Lt. Col. Jim Crossman, USA



In slow-fire shooting use your time profitably



If you use an M1903 rifle, loading the five-round clip in rapid-fire can be tricky



Blackening the sights with a carbide lamp will kill any glare



To save time, study of the dope book should be done while the target is in the pits



In slow-fire, spotting each hit carefully pays dividends



As the rifle is wedged firmly into the shoulder with the right hand, the sling tightens up across the back of the left hand and on the left arm



Careful study of conditions and shot plotting in the dope book will gain points



Dropping to sitting in the cross-legged position



Getting a comfortable cross-leg sitting position

So you're interested in high power rifle shooting, are you? Well, c'mon in—I'm delighted to see you, and you are talking to the right guy, because of all the various rifle, pistol, and shotgun shooting games I've tried, high power rifle shooting is the one for me.

Do you want to try careful, precise, long-range shooting, with detailed study of the weather and wind effects? It's part of high power shooting. Want to shoot some in the standing position? Sitting? Prone? They're all part of high power. Maybe you're the slap-dash kind and want to do a lot of shooting in a hurry? You should try the high power rapid-fire stages. Do you want to invest a young fortune in fancy rifles, scopes, and other equipment? I guess you can if you set your mind to it, but most of us are getting by on a pretty cheap outfit. I don't know where else you can get such spice and variety in the shooting game with such an inexpensive outfit.

The high power rifle game consists of shooting a moderate weight center-fire rifle in various positions, slow-fire and rapid-fire, at ranges of 100 to 1,000 yards. The usual courses of fire consist of standing slow-fire at 200 yards, sitting rapid-fire at 200, prone rapid-fire at 300, and prone slow-fire at 600 and 1,000 yards. Not all clubs can get up to 1,000 yards—it's the rare and fortunate club that can—and most clubs have to get by on less than this. In fact, a club is fortunate to have a 500- or 600-yard range, but a very satisfactory program can be built on the shorter ranges of 100 to 300 yards, and the NRA has developed a series of targets for these shorter ranges, as the usual military targets can be too easy there.

While you can see bullet holes all right at short range, it becomes more difficult at 200 and 300 yards and impractical beyond. So high power rifle targets are usually mounted on a balanced frame, sliding up and down

like a window. A pit is dug to protect the man who marks targets, and when a shot is fired he pulls the target down and puts a spotter on it, so you can see where you hit.

The spotter is a large cardboard disc, black on one side for shots in the white and white on the other for shots in the black bull. A peg, fastened to the disc, fits in the bullet hole in the target. When you fire your next shot, the marker moves the spotter and pastes the first shot hole, and so on for your whole string. Rapid-fire is handled a little differently, as the targets are run up for the specified time, pulled down, and all ten shots then marked.

All this talk of 1,000-yard ranges, pits, markers, etc., may scare you, but let me emphasize again that a satisfactory and successful high power rifle program can be conducted with very much less than this ideal set-up. You can learn standing, rapid-fire, and prone pretty well at the shorter ranges, although you do miss out on long-range wind doping and on the poor visibility you often find at the long ranges.

This subject of high power rifle shooting is a big one—many books have been written about it. I've broken it down into chunks of a size we can handle more easily, but don't forget that all the chunks are really part of one big piece.

Equipment

While the beginner can borrow equipment for a time, eventually his welcome wears out, and before matters get to that point he should have begun to invest in some gear of his own. One of the nice things about high power rifle shooting is that you can get by on a rather limited investment without being too badly handicapped. The few essential important things should be gotten first, with the trimmings added later as necessity demands and the purse permits.

You probably think of the rifle as your first investment, but it may not be. Many NRA-affiliated clubs have drawn M1 service rifles for use by club members from the Director of Civilian Marksmanship, an agency of the U. S. government's National Board for the Promotion of Rifle

Practice. M1 rifles were first sold at the 1954 National Matches to competitors, and presumably will be sold in the future at the Matches. If you wish to buy a match rifle, be sure it meets the definition of the NRA match rifle.*

You can get by with other equipment in local matches, but the bigger shoots usually require the match rifle and frequently have a separate class for the M1 rifle. Some few matches are open to any rifle, including those weighing more than 10½ pounds and chambered for other cartridges than the .30-'06, but not too many.

Within the limits of the match rifle class, you will find a great variety of equipment being used, including the Springfield, Enfield, Winchester M54, Winchester M70, etc., in original and modified versions.

Whatever rifle you get, be sure it has sling swivels for the wide 1¼-inch sling, a good blade or interchangeable front sight, and a good micrometer target-type rear sight capable of easy adjustment in ½- or ¼-minute clicks. The stock should have a big, flat comfortable fore-end, should be long enough to keep your face out of the bolt but not so long you can't work the bolt rapid-fire, and should be as straight as you can use in the standing position.

* Some tournaments permit any type of high power rifle to be used. Others restrict the type of arm to one or more rifles as defined in the NRA High Power Rifle Rule Book effective July 1. Rule Book definitions are:

Any rifle—A center-fire rifle of any caliber or weight, not equipped with palm rest, Schuetzen-type buttplate, nor trigger capable of set trigger functioning.

Service rifle—U. S. Rifle, Caliber .30 M1, as issued by the Army Ordnance Corps, having not less than four and one-half pound trigger pull, with standard-type stock, standard-type leather or web sling, and sights as issued. Sling cuffs and sling pads are not permitted.

NRA match rifle—A rifle weighing not over 10½ pounds excluding sling, with not less than a three-pound trigger pull, chambered for the unmodified .30-'06 cartridge, metallic sights. This includes the Enfield and Springfield rifles and all factory model rifles which are catalogued by the manufacturer as having a standard weight of not more than 10½ pounds and which have not been altered to increase the weight. The current service rifle as issued may be used unless otherwise specified in the program.

Military rifle—Any rifle now, or in the past, issued as the regular service arm to the regular or reserve forces of any national government. Must be fired as issued. Not less than three-pound trigger pull.

Free-rifle—A rifle weighing not more than 19.8 pounds, of any caliber not exceeding 9 mm. (.354 inch), with metallic sights.

LT. COL. JIM CROSSMAN, USA, has years of experience in high power rifle shooting. He is now on duty at Aberdeen Proving Ground, Maryland, with Army Ordnance.

While you can get by in local matches with nearly any old rifle, as you get into bigger matches you will find yourself restricted and likely won't be able to use your pet lever-action .30-30. But the reverse is not true, and there's nothing to keep you from using your match rifle for hunting, although it may be a bit heavier than you'd like. However, if you put more emphasis on hunting, you may want to compromise still further and get a rifle which is possibly good for both purposes.

You'll note that the NRA match rifle is confined to the .30-'06 cartridge, which has been highly developed for competitive shooting. Fine, accurate match ammunition can be bought on the market, although many shooters prefer to load their own, often brewing up a batch of accurate, light loads for the 200- and 300-yard stages, and more powerful wind-buckers for the longer ranges.

At the long ranges when other cartridges are permitted, the .300 Magnum usually takes the medals. Since "any rifle" matches often permit any sights, if you should ever decide to get interested in the .300, then you should begin thinking about a scope sight at the same time.

Assuming you now have a rifle, your next investment should be a shooting coat—not, as you might think, for the purpose of keeping your shoulder from getting sore from recoil, but to protect your arm from the sling and your elbows from being ground raw. Since you can learn a



Sitting rapid—starting down

great deal of shooting at home with an unloaded rifle, you should get a coat as soon as you can, and then use it for plenty of practice.

Keeping book

A score book can be easily improvised or bought pretty cheaply, and will be worth its weight in gold if used properly. It really should be called a 'dope' book rather than score book, because the score is the least important of the entries in the book. During the shooting of a string, the

location of each shot should be plotted on a miniature target, along with the sight setting used for each shot. You can watch your group build up, and determine if a sight change is needed to center your group on the bull. After you have used the book a while, you will be able to determine the effect of different light on your sight setting, if your rifle tends to 'walk' during a string, how your rapid-fire and slow-fire sight settings differ, and other useful bits of information. No one is going to object if you put in the score, and it's sort'a fun to look back at your past shooting.

A spotting scope is a pretty useful item, and will earn its way. While spotters are generally put in bullet holes in targets at 200 yards and beyond, a scope will help you determine the exact location and let you check on the pit boy. In rapid-fire matches spotters are not always used, and it is nice to be able to see your bullet holes in the target—but you can't rely on seeing them all the time. The spotting scope is most useful in helping you dope wind. If you aren't frantic to see bullet holes at 300 yards, you can get by with fairly simple equipment—a pair of binoculars, or even a monocular. A stand of some sort to hold the scope and to permit you to use and adjust it easily in the prone position is required also.

Handy and helpful

Other equipment can be bought or made from time to time as the need arises. A shooting glove to protect your hand and wrist from the sling and sling swivel will be helpful. You may want some method of taking the bright glare and shine off the sights, especially if they aren't well shaded from the sun, the most popular scheme being to smoke them with a miner's carbide lamp.

Some people like to carry a rifle rest, for use in the prone position, and for keeping the rifle off the ground between relays. A ground cloth or pad of some sort is handy on a very rough firing point or on one covered with loose dirt or gravel. A light folding stool gives you a chance to relax during an offhand string, and is useful at other times when you are waiting. You may want a bag or box to keep all your trinkets together, but you should beware of getting loaded down with too much gear. On some ranges you may have to carry all this stuff a half mile or more and you don't want to arrive on the firing line exhausted.

On the firing line

The firing point was built for only one purpose—for firing. If you want to debate the fate of the world, to overhaul your gun, or to write detailed notes on your shooting, do it before or after you are on the line.

When you're on the firing line, shoot! When you are done, get off the line and let the next man get up.

In slow-fire matches up through 600 yards you are allowed a minute per shot, or ten minutes for a ten-shot string, etc. This is plenty of time if you organize yourself and use your time profitably. Many civilian clubs operate at a more leisurely pace and rarely worry about a time limit, which is probably more fun and all right, unless you get in the bad habit of dawdling. When you shoot in a match run on a time limit, you may end up with shots not fired.

Long before you get into a serious tournament, you should have worked out for yourself what equipment to take with you for a standing match, for a rapid-fire string, and for a long-range shoot. The gear probably will be different for the three matches. During this process, you should also have worked out how you want this stuff distributed on the firing line when you are in position.

For standing, I take a stool and shooting bag, while rapid-fire calls for the scope and score book. In a prone match, I first pick a likely spot for my left elbow and place everything in relation to it, with the scope close to the elbow position, ground cloth at the correct angle and not too far up, shooting bag to the right front, ammunition in the left side, score book open and on the right side, and so on.

Watch the elements

Before you are called up on the line, study your score book, the wind, temperature, light, and other conditions and decide what sight setting you should use. Having decided, note the setting in your score book and put it on your sights. Fill out the other dope in your score book—ammunition type, weather, date, location, etc. Having set your sights, blacken them if they need it. Check your sling for proper adjustment and give a final run-down on other details—right kind and amount of ammunition, squadding ticket, scope, etc. Then relax and wait to be called. Don't wander so far away that a search party has to be sent for you.

When you are called, move up promptly, set up your gear, and get ready to shoot. Assuming you are shooting a slow-fire string, make a last minute check of conditions to see if they have changed since you set the sights a while back. If not, check the sights to be sure they are right and then shoot. Now write in your score book any changes in sight setting. As soon as your target comes up, check spotter location and wind conditions, make any necessary sight change, and shoot again. Now plot in your score book the changed sight settings for the second shot, and the location of the first shot. In this

scheme, you do your bookkeeping while the target is down in the pits. When the target is up, you should be looking at it or shooting at it.

When you have fired your last shot, collect your gear and move it off the line as soon as possible. Then go back and pick up the empty cartridge cases—"brass", shooters term these—check with the score keeper and sign the score card. But clear the firing line as soon as you can, so the next man can move up into position.

Rapid-fire

Tell a man he has to shoot ten shots in less than a minute, call it rapid-fire, and you have the makings of a first class panic. For this reason the Army changed the name from "rapid-fire" to "sustained-fire", which is equally descriptive and less terrifying.

Rapid-fire at 200 yards is fired either with the M1 rifle or with the NRA match rifle, in a ten-shot time limit of 50 seconds for the M1 and 60 seconds for the match rifle. While the 200-yard stage is fired either sitting or kneeling, the 300-yard stage must be fired prone, with time limits of 60 seconds for the M1 and 70 for the match rifle.

Perhaps the best way to understand this rapid-fire business is to stand beside ol' Henry Hotshot and take a few notes on times and events while he shoots a string. We first see Henry as he is sitting on the ready line waiting for the first relay to finish. He is wearing his shooting coat and glove, has the sling on his arm, and has his other personal gear ready to be moved with him. Henry has ammunition in a coat pocket, his score book in a pocket, and his spotting scope close by. He has already studied conditions, determined his sight settings, put them on the rifle, entered them in the score book, blackened his sights, and done all the other preliminary jobs. From now on let's write down the commands and important times, along with what happens.

"Second relay on the firing line"—Henry moves up to the firing line, checking in with the scorer as he goes by, to be sure he's at the right

place and time. Since this is the 200-yard stage, he knows the rules permit firing either kneeling or sitting and he also knows that this means sitting, for all practical purposes. So Henry picks out a likely looking spot and sits down, squirming around until he is situated just right. When Henry is satisfied, he notes where his heels should be—but not by digging a deep pit—and then stands up, which indicates to the range officer that Henry is ready to go. Meanwhile, the targets have been pasted, put at half-mast, and a red flag run up to indicate the pits are ready.

"Load and lock"—Henry, being an old hand at this game, knows that the man shooting a Springfield, M70, or other bolt-action rifle would put four rounds in the magazine and one in the chamber and put on the safety. He would have another clip loaded with five rounds nearby to complete the ten-shot string with. However, Henry is shooting an M1 rifle, which calls for a different procedure since the M1 has an eight-round magazine. Using an empty clip and both hands for manipulation, two rounds are put in the M1 rifle, after the safety has been put on. He would have a clip loaded with eight rounds nearby. Henry then stands relaxed, waiting for further commands. Or perhaps he will make a final adjustment of the sights.

"Ready on the right? Ready on the left?"—Questions put to the shooters by the range officer. If not ready, the shooter should yell out "Not ready, target XX" and he will be given more time.

"Ready on the firing line"—Indicates to the pit detail and shooters alike that everyone is ready and rarin' to go. Brother Hotshot takes off the safety, glances down again at the number on his target stake, then watches his target like a hawk, while he stands erect and in a relaxed position from which he can rapidly drop into position.

Out of the corner of his eye, Hank sees the red flag in the center of the pits wave for a few seconds. Then Hotshot sees the flag disappear, but he remains relaxed, watching his target. As soon as he sees the targets

start up, he starts down, dropping into position with his heels in the previously marked locations, breaking his fall with his right hand if necessary. He squirms around a bit until the position feels right, as he brings the rifle to his shoulder. When he has the right position, he rechecks his target number, aims and starts his squeeze.

Careful here

Here is where the beginner goes wrong. He thinks he has to yank the shots to finish in time, and so he shoots all over—and off—the paper. There is a difference between a fast squeeze and a yank, and a vast difference in the results. When they finally get the idea, and begin to shoot good rapid-fire scores, many shooters find their slow-fire improves too, because they learn to get a shot off quickly without yanking.

After ten seconds Henry has gotten his position and has just squeezed off his first shot.

After 15 seconds he's fired his second shot and since he is using an M1 rifle, he is now engaged in doing something about reloading it, and has taken the rifle down off his shoulder.

After 25 seconds Henry has taken a full clip from his cartridge belt, jammed it firmly down in the M1 magazine, given the operating rod handle a smack with the palm of his right hand to help the bolt close, shifted position as necessary, gotten the rifle back up to his shoulder, checked his target number, and probably squeezed off his third shot. If his position wasn't just right on the first two shots, he takes a little extra time to make it right before firing his third.

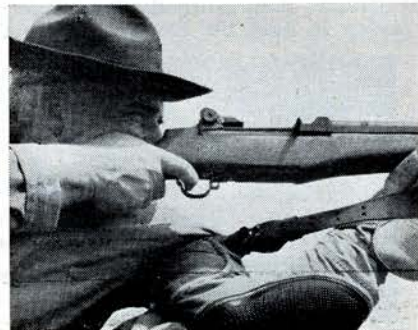
After 35 seconds Hotshot is well on his way, squeezing off his shots in a smooth, regular cadence. He knows that he has three or four seconds per shot for the last eight shots, which is plenty of time if he uses it profitably. His position is just right, so that as he recovers from recoil, his sights are nicely lined up and he can add the few necessary extra ounces of trigger pressure to that he put on as he was recovering from recoil. The



Sitting rapid—almost down



The spread-leg position—wedging the rifle into the shoulder



Sitting rapid—squeezing one off

usual beginner finds his ears popping, eyeballs starting out, and face turning black at this stage, because he has forgotten completely about breathing and has been holding his breath all this time. The old hand like Hotshot has learned to hold his breath while he is aiming, then to grab a quick new one while recovering from recoil, between every shot.

Time is fleeting

After 45 seconds Hank is just squeezing off his ninth shot, confident that he still has plenty of time for his last shot. You see, Hank is one of these guys who isn't happy until he turns the last one loose just as the target dives for the pit. Personally, I can't stand the pressure of running so close to the limit, and I do better by finishing a few seconds ahead of time. Then I know I have spare time in case of trouble along the way.

After 50 seconds the targets go down and Hank sits there, knowing he has squeezed off ten good shots, and has used his 50 seconds to the best advantage.

"Cease firing, unload"—at this command Hank checks his rifle, gets up, moves his stuff off the firing line and polices his brass, while keeping an eye on his target. When it comes up he drops down behind his scope, watches the discing, and studies his group size and location. When satisfied that he's gotten the right marking, he checks with the scorer, signs his card, and gets off the firing line.

The man who is shooting a bolt-action rifle at this 200-yard rapid-fire game would follow pretty much the same procedure as Hank, except that he would have 60 seconds for his ten shots, would load five rounds to begin with, and would have to operate the action by hand. The other details—getting into position, sighting, squeezing, breathing, etc.—are much the same with either rifle.

Due to the difference in clips for the M1 and for bolt-action rifles, the loading procedure is quite different. Where the M1 "en bloc" clip with its eight rounds is inserted into the rifle as a complete package, the Mauser-type "clip" for the M70, Springfield, or similar rifle is really a charger, serving to hold the five rounds in a

convenient group until you are ready to charge them into the magazine.

Clip loading is an operation that may ruin the beginner's rapid-fire score. It should be done smoothly, firmly, and rapidly, but without rushing.

In loading the M1, when once the clip is started in the receiver, give it a good husky push with the thumb to be sure it seats on the first try, and your thumb rocks up out of the receiver as the palm of your hand hits the operating rod handle. An occasional round will work forward in the M1 clip, until the extracting groove on the case has gotten forward of the mating ridge in the clip. When you try to put such a clip into the M1, you get a horrible jam. *Check your clips before it's time for trouble.*

Loading the magazine

In loading with the five-round charger, a little more finesse is required. With the thumb about one-third of the way forward on the cartridge case and with the fingers around the floorplate for added control, the thumb should smoothly 'roll' the cartridges out of the clip and into the magazine—and be sure you seat the last round in the magazine. If your thumb is in the wrong location on the top cartridge when you start, you will likely end up in an awful mess. Clip loading either the M1 or the five-round magazine is best learned at home with dummy ammunition.

Timing is different with the two rifles, although for the first and second shots timing is about the same—that is, the first is off within ten seconds and the second about four seconds later. Then the man with the five-shot rifle should go along at about four or five seconds per shot, firing his fifth just before half-time. About five seconds to reload and a few more to get the rifle up and squeeze, should see the sixth shot off at about 35-40 seconds. He should roll along at about a four- or five-second cadence, which will bring his last shot at around 55 seconds, leaving a little margin for emergencies.

Since the M1 rifle does all the work of reloading between shots, it would seem that you should have more aiming and squeezing time, even with the shorter time limit. Since you don't move around, as you do in swinging the bolt and reloading the magazine of the bolt-action rifle, there is less chance to recover if you are kicked out of position.

It is most important to get a good position for the first shot of the clip. And despite your first awkward attempts, it isn't hard to learn how to operate the bolt and how to do it easily and rapidly. But the place to learn is not on the firing line—not as

long as you have any spare time at home. In the rapid-fire matches at Perry in 1953, the percentage of possibles was much higher with the bolt rifle than with the M1.

The other two sorts of rapid-fire are prone at 300 yards, in 60 seconds with the M1 rifle, or 70 seconds with the bolt-action rifle. Sighting, aiming, reloading, and breathing are much the same as at 200 yards. Although you are shooting from the more steady prone position, the increased range requires relatively smaller groups. A group measuring six minutes of angle will just fit the 12-inch bull at 200 yards, but the same bull at 300 yards calls for a four-minute group. Because of this, the extra time you have should be devoted to a bit more careful aiming and squeezing.

And this brings us to a most interesting point. Sight settings at both 200 and 300 yards rapid-fire may not be the same as your settings in slow-fire, and the only way to find out the right dope is lots of rapid-fire shooting and careful study of your group sizes and locations.

Getting into position

A major difference is in the method of getting into position. When you have your prone position, stand up, with your feet in the marked position, sling on, left hand in position under the sling, right hand grasping the rifle at the heel. Drop forward on your knees, while you lean backwards to ease up on the landing shock. Throw caution to the winds now and fall forwards, while you toss the butt of the rifle well ahead and to your right. As you land, break your fall with stock in your right hand. Now drop your left elbow into its marked position and with the right hand, wedge the stock into your right shoulder. The trick here is to throw the butt of the rifle well ahead as you fall forward.

Before you rush out and start spraying the countryside with bullets, be sure you can shoot good scores sitting and prone slow-fire. Then work out the mechanics of loading and reloading, of getting into position, and of bolt manipulation, without doing any shooting. When you have all the details worked out, start putting 'em together, slow and easy and squeezing all your shots. Although you probably will run overtime to begin with, you will soon work that down with more shooting. But don't ever get so interested in the time limit that you forget the basic: Hold 'em and squeeze 'em! ♦ ♦ ♦

In the conclusion of this article, to appear in the August issue of THE RIFLEMAN, Col. Crossman discusses the standing position, wind doping, and mirage.



Reloading—force the clip down with a single firm motion

NRA SANCTIONED TOURNAMENTS

To be listed, NRA must sanction matches by the 15th of the month, two months prior to the month of the magazine issue. If you are interested in entering a tournament, contact the individual listed. For any cancellations or changes to this listing, please contact Shelly Kramer: (703) 267-1459; mkramer@nrahq.org, NRA Competitive Shooting Division.

NATIONAL SMALLBORE RIFLE CHAMPIONSHIPS BRISTOL, IN

JULY 14-25, 2014

- Jul. 14-15 Metric 3-Position Championship
- Jul. 16-17 Conventional 3-Position Championship
- Jul. 19-23 Conventional Prone Championship
- Jul. 24-25 Metric Prone Championship

Championship programs and registration are available at: <http://compete.nra.org/championship-tournament/national-smallbore-rifle-championships.aspx>. To request a printed entry form and/or program: (A) Submit a request via e-mail to hmoody@nrahq.org or to lwenzell@nrahq.org indicating your request or (B) Submit a written request indicating your request to: NRA Competitive Shooting Division, Attn: National Smallbore Rifle Championships (Mrs. Lois Wenzell), 11250 Waples Mill Road, Fairfax, VA 22030.

2014 NATIONAL RIFLE & PISTOL CHAMPIONSHIPS CAMP PERRY, OH

- Jul. 8-13 Pistol Matches
- Jul. 14-23 CMP High Power Rifle and Games Events
- Jul. 24-29 NRA High Power Rifle and Mid-Range Championship
- Jul. 30-Aug. 3 NRA Long Range High Power Rifle Championship
- Aug. 5-10 NRA Fullbore Championship

Online registration for the National Championships is available at: www.nmentry.com (select the "2014 Camp Perry Online Entry" link). Entry forms and programs are available on the NRA Competitive Shooting website or will be mailed to competitors. To request an entry form and program either:
(A) Call (877) 672-6282 and press "1";

Click here for the entire Coming Events list.

Click this box to download the entire Coming Events list in a smaller file size (without page turning).



Recently retired
Jamie Gray with
her 2012 Olympic
gold medal.

(B) E-mail a request indicating your desired phase (pistol, smallbore or high power rifle) to compadmin@nrahq.org; or (C) Mail a request indicating your desired phase to: NRA Competitive Shooting Division, Attn: National Matches Request, 11250 Waples Mill Road, Fairfax, VA 22030.

2014 SPIRIT OF AMERICA FULLBORE PRONE CHAMPIONSHIP RATON, NM SEPTEMBER 5-12, 2014

For information please contact: John W. Gaines,
122 Hidden Haven Drive, Boerne, TX 78006; jrgaines@gvtc.com.

2014 F-CLASS NATIONAL CHAMPIONSHIPS PHOENIX, AZ OCTOBER 28-NOVEMBER 2, 2014

For information please contact: Middleton Tompkins,
P.O. Box 11684, Prescott, AZ 86304; (928) 776-8576.

2014 NATIONAL SILHOUETTE CHAMPIONSHIPS

Jul. 9-12	Hunter's Pistol	Raton, NM
Jul. 14-16	Smallbore Rifle	Raton, NM
Jul. 18-20	High Power Rifle	Raton, NM
Jul. 22-25	Cowboy Rifle	Raton, NM
Jul. 29-30	Black Powder Cartridge Rifle Scope	Raton, NM
Aug. 1-2	Black Powder Cartridge Rifle	Raton, NM
Sep. 13-20	Black Powder Target Rifle	Raton, NM

Program and entry cards are available. Write for yours and be sure to specify the Championship(s) you wish to attend. Write or call: NRA Silhouette Dept., 11250 Waples Mill Rd., Fairfax, VA 22030; (703) 267-1474 or silhouette@nrahq.org. ©

NRA MEMBER INFORMATION & BENEFITS

MEMBERSHIP ACCOUNT INFORMATION: (877) 672-2000

NRA Headquarters: (703) 267-1000

INTERNET ADDRESS: www.nra.org

MEMBER SERVICE (800) 672-3888

NRAstore.com (888) 607-6007

MEMBER PROGRAMS

Hertz Car Rental CDP# 166609

(800) 654-2200

AVIS Car Rental AWD# A832100

(800) 225-7094

NRA Endorsed Insurance Programs

(877) 672-3006

NRA Endorsed Prescription Plan

(888) 436-3700

NRA Endorsed Check Program

(888) 331-6767

NRA VISA Card

(866) NRA-VISA

NRA Real Estate/Relocation Services

(800) 593-2526

NRA Endorsed Moving Program

North American Van Lines (800) 524-5533

Allied Van Lines (800) 871-8864

INSTITUTE FOR LEGISLATIVE ACTION

Grassroots/Legislative Hotline

(800) 392-8683

OFFICE OF ADVANCEMENT

(877) NRA-GIVE

THE NRA FOUNDATION (800) 423-6894

GIFT PLANNING (800) 672-4521

EDDIE EAGLE GUNSAFE PROGRAM

(800) 231-0752

FRIENDS OF NRA

(703) 267-1342

WOMEN ON TARGET

(800) 861-1166

REFUSE TO BE A VICTIM

(800) 861-1166

INSTRUCTOR/COACH

(703) 267-1500

COMPETITIVE SHOOTING

(703) 267-1468

FIELD OPERATIONS/RANGES

(877) 672-7264

GUN COLLECTOR PROGRAMS

(703) 267-1601

NRA AFFILIATED CLUBS

(800) NRA-CLUB

HUNTER SERVICES (703) 267-1500

LAW ENFORCEMENT

(703) 267-2640

NATIONAL FIREARMS MUSEUM

(703) 267-1600

EDUCATION & TRAINING

(703) 267-1500

MEDIA RELATIONS

(703) 267-1595

YOUTH PROGRAMS (703) 267-1505

PROGRAM MATERIALS CENTER (800) 336-7402

HENRY TRIBUTE RIFLES

Made In America Or Not Made At All



MILITARY SERVICE
Honoring Those Who
Answer The Call of Duty
MODEL NO. H004MS



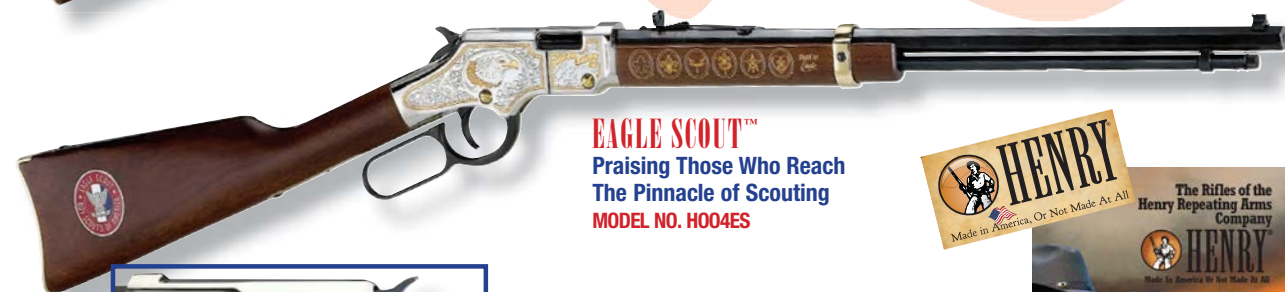
LAW ENFORCEMENT
Saluting America's Finest
MODEL NO. H004LE



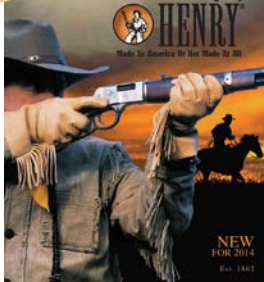
FIREFIGHTER
Hailing America's
Bravest
MODEL NO. H004FM



AMERICAN FARMER
Celebrating Those Who
Feed The World
MODEL NO. H004AF



EAGLE SCOUT™
Praising Those Who Reach
The Pinnacle of Scouting
MODEL NO. H004ES



**For a FREE color catalog
and Henry decal
visit www.henryrifles.com
or call Toll Free (800) 517-5499**