

CANADIAN

# FIREARMS JOURNAL

SEPTEMBER/OCTOBER 2021



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# CANADIAN ***FIREARMS JOURNAL***

September/October 2021



## COLUMNS

**4**

### ON THE COVER

**5**

### FROM THE EDITOR'S DESK

Election Readiness

SHELDON CLARE

**6**

### PRESIDENT'S MESSAGE

Election Readiness

SHELDON CLARE

**9**

### VICE-PRESIDENT'S MESSAGE

Corporate & Political Attacks

BLAIR HAGEN

**10**

### POLITICS & GUNS

Gun Control As A Gateway  
To Dictatorship?

BRUCE GOLD

**14**

### PRESERVING OUR FIREARMS HERITAGE

Hunting Revelations

GARY K. KANGAS

**50**

### LEGAL CORNER

Handgun Cases: What's Legal  
& What's Not

GUY LAVERGNE

**54**

### NFA BOOK SHELF

The Guns Of  
John Moses Browning

BILL RANTZ

## FEATURES

**14**

### SUPPORT PRODUCES RIFLE ACCURACY

Monopods, bipods & tripods

DUANE RADFORD

**18**

### TRAINING PRODUCES RIFLE SPEED

One, two, three – bang!

TIMOTHY FOWLER

**22**

### BECOME A BETTER WINGSHOOTER

Tips & techniques to improve  
shotgun success

KEVIN WILSON

**26**

### DIAL OR HOLD?

Demystifying hunting  
scope reticles

LOWELL STRAUSS

**33**

### A PISTOL CHASSIS IN 3-GUN

Finding a use for a spare handgun

TYSON SOMMERVILLE

**36**

### SLUG GUNS

Checking out single-  
projectile shotguns

JEFF HELSDON

**40**

### AN INTERNATIONAL RIMFIRE

On the hunt with a Grey Birch/  
TacSol/Eley 10/22

AL VOTH

**44**

### UNLEADED BULLETS

Understanding mono-metal bullets

T.J. SCHWANKY

**49**

### YETI'S LOADOUT GOBOX 30

Keeping your gear safe and secure

JEFF SMITH



## MISSION STATEMENT

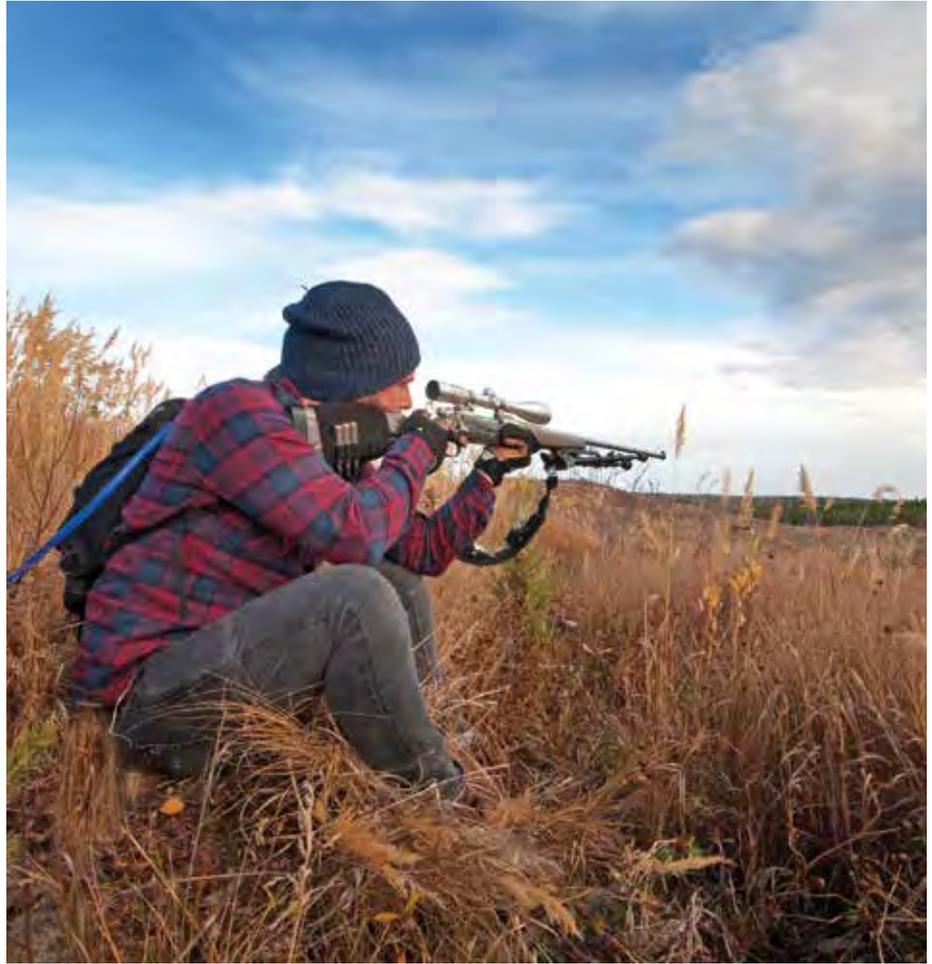
Canada's National Firearms Association exists to promote, support and protect all safe firearms activities, including the right of self defense, firearms education for all Canadians, freedom and justice for Canada's firearms community and to advocate for legislative change to ensure the right of all Canadians to own and use firearms is protected.

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# On the Cover

This month's cover comes from the camera of Tim Fowler. He captured this image of Joshua, his youngest son, while on a deer hunt. Every autumn Tim prepares a campsite, setting up an outfitter tent for a week or two, and chases deer, hunting with his sons and friends. Here, Joshua is shooting a decades-old Remington 700 BDL in 7mm Rem. Mag., which he bought with his allowance when he was 14. He's shooting Dad's handloads, which use Hornady 139 grain SST bullets. And yes, he got the deer, a fine-eating doe. 🍖



## Canadian Firearms Journal

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FIREARMS  
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# From The Editor's Desk

Al Voth

## Hunting, Awards & Elections



Welcome to the September/October issue of the *Canadian Firearms Journal*. It's fall and the time of year when the thoughts of many of Canada's gun owners turn to hunting. With that in mind, we have concentrated on putting an emphasis on hunting-related content in these pages. Specifically, we've tried to bring you articles focusing on skills and technical information which can help you in the field. No, you won't find any how-to-hunt a particular species of game articles here, because we are, after all, a gun magazine. There are lots of other great hunting and fishing magazines in Canada containing all that how-to-hunt information. So, our focus is on the firearms and ammunition involved, along with the skills to use them.

Of course, all that information would be useless if we lost the right to use firearms, so we also do our best to keep you informed on the legal and political issues which affect our right to own and use firearms. That's always here and will remain so. And with many political

pundits predicting a fall election, that information is more important than ever.

I'd like to also take this opportunity to congratulate two writers whose contributions to the *CFJ* have won awards in the Outdoor Writers of Canada annual communication awards program. Lowell Strauss took second place in the Guns and Gear category for his article *First Person Shooter*, which appeared in the 2020 July/August issue of this magazine. Then T.J. Schwanky took third place in the same category for his piece titled *Hunting Or Targets: Understanding The 6.5 Creedmoor*, which was published in the 2020 November/December issue. Other writers whose work regularly appears in these pages won awards as well for contributions to other publications, and they include Jeff Helsdon and Vanessa Harrop. Congratulations to all of them. I have no doubt that some of the 2021 content these and other writers contribute will win awards as well.

Some of that award-winning content

may be in these very pages. If you're technically minded, look specifically for T.J. Schwanky's article about mono-metal bullets and Lowell Strauss' piece on shooting at longer distances via dialing or holding over. And in the skill improvement area, we have contributions from Duane Radford on how to get steady for a shot, followed by Tim Fowler's technique on how to train to do that quickly. And since we don't want to leave out shotgunners, Kevin Wilson lays out some tips and techniques for becoming a better wing-shooter, while Jeff Helsdon explores the world of slug guns.

I'd like to close by reminding you that if an election happens this fall, be sure to vote and even volunteer for the candidate you choose to support. However, also make the effort to take someone new to hunting into the field with you. Let's not hoard the hunting heritage we hold dear, but share it generously with others, especially young people, who will soon become voters too and can help protect that heritage.



# President's Message

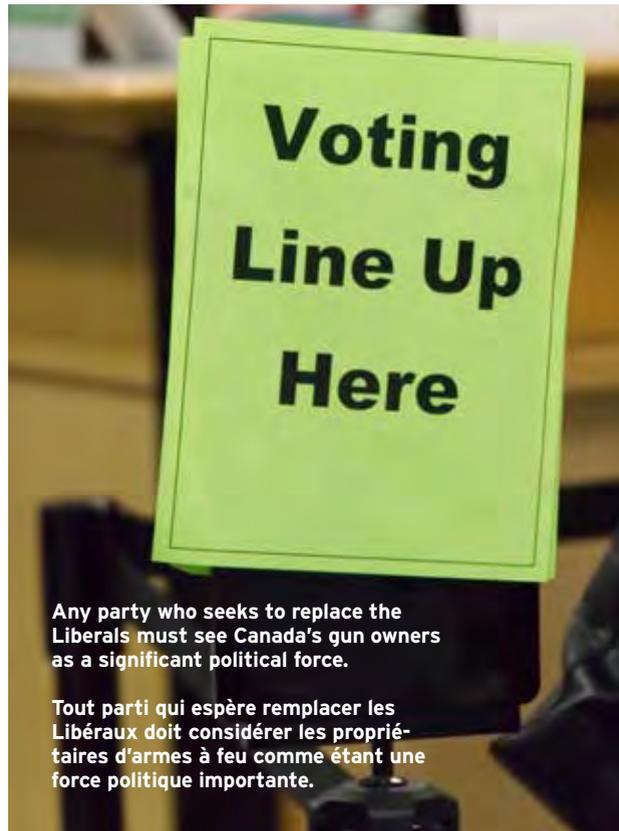
Sheldon Clare

## Election Readiness

**A**t time of writing, there are rumors of a fall election in the air. The NFA has begun its work as a third party in the pre-writ period to target specific swing ridings in order to defeat the Liberals. With our operational efforts and your work on the ground, we can win this election and stop the corrupt Trudeau Liberals from continuing their dangerous, divisive and destructive “woke” political agenda.

As we are aware, a significant part of that agenda is to spend nearly \$1 billion of tax dollars to steal our firearms from us. Our legal efforts and fundraising in support of Parker and KKS Tactical v. Canada, pushing back against the May 1, 2020, Order in Council, is an important part of our fight. Make no mistake though, this fight must be won at the ballot box.

This Liberal socialist agenda has nothing whatsoever to do with public safety, and everything to do with civil disarmament. The Liberals are getting support from well-funded anti-gun groups with ties to groups in other countries. Our tax dollars are being used to support coordinated international gun control, and it's not OK. The government will be taking a number of steps to force us to comply. They will send directives and offers of compensation for you to voluntarily surrender your property -- at least, the registered ones that they know about. That's why one should never register one's firearms; registration has never been about anything but confiscation.



**Any party who seeks to replace the Liberals must see Canada's gun owners as a significant political force.**

**Tout parti qui espère remplacer les Libéraux doit considérer les propriétaires d'armes à feu comme étant une force politique importante.**

They believe that they will force innocent firearms owners to surrender firearms for compensation. No matter how tempting the 30 pieces of silver may look, I can assure you that it will not be enough, nor will complying in any way stop more gun grabs in the future. The time to say no is now. When it becomes clear that many of us have no intention of surrendering our property, they will up the ante and begin threatening people with removing their firearms privileges, and even by making examples of people with criminal prosecution. State-organized coercion is a serious matter and should not be taken lightly. They may, as a last resort, even try making

examples of people by going to homes to seize guns. That activity will most certainly not go well. People showing up to seize guns from innocent Canadians are nothing less than agents of authoritarianism.

Such oppressive behaviour by government is not appropriate in a free society and cannot be tolerated. If allowed to progress, such actions by the government will lead to a progression of resistance. Such resistance will be both passive and active, and it will be a tangible demonstration of a growing loss of respect for law and order.

However, we can prevent all of this by getting involved in the next federal election. Staying home and refusing to vote is not an option. Voting for a fringe party as a protest vote would be a huge mistake which will only help the Liberals hold onto power. A consolidated effort will be necessary to push back against the gun grabbers, and

that means engaging with your local candidates. It means working to get out the vote, and by making it clear to candidates why you are there.

Any party who seeks to replace the Liberals must see us as a significant political force, with the effectiveness of our effort measured in parliamentary seats won in the election. If we do not win this election, we are in for dark times indeed. When a government as corrupt and divisive as the one we currently have wants our guns, it is quite clear that we must be vigorous in preventing them from achieving success. Never give up your guns and keep your powder dry.

# Message du Président

Sheldon Clare

## Prêts Pour L'élection

**A**u moment d'écrire ces lignes les Arumeurs courent à propos d'une élection cet automne. L'ACAF a déjà commencé son travail en tant que tiers durant la période pré-électorale pour cibler les circonscriptions vulnérables dans le but de défaire les Libéraux. Avec notre travail opérationnel et votre contribution sur le terrain nous pouvons gagner cette élection et empêcher les Libéraux corrompus de continuer leur plan politique dangereux et destructeur qui ne fait que semer la discorde.

Comme nous le savons, une partie importante de ce plan est de dépenser presque un milliard de dollars des contribuables pour nous voler nos armes à feu. Une partie importante de notre contribution envers la lutte pour notre cause se trouve dans nos levées de fonds pour soutenir la poursuite, Parker and KKS Tactical v. Canada, qui consiste à résister au décret du 1er mai 2020. Par contre, la bataille véritable doit se faire le jour du scrutin.

Le plan socialiste des Libéraux n'a rien à voir avec la sécurité publique et tout à voir avec le désarmement civil. Les Libéraux reçoivent de l'aide de la part de groupes anti-armes qui sont très bien financés et qui ont des liens avec des groupes venant de l'étranger. Encore, l'argent des contribuables sert à aider des groupes anti-armes internationaux et ce n'est pas correct. Le gouvernement va adopter plusieurs mesures pour nous forcer d'obtempérer. Ils vont employer des directives et des offres de compensation pour nous faire volontairement abandonner notre propriété - les armes enregistrées du moins, celles dont ils connaissent l'existence. C'est pour cela qu'il ne faut jamais enregistrer nos armes à feu. Le but ultime de l'enregistrement c'est la confiscation

Ils croient qu'ils vont forcer les propriétaires d'armes à feu respectueux des lois d'abandonner leurs armes



If a fall election does occur, we want to see a new party occupy the Parliament Building.

Si nous allons aux urnes cet automne, nous voulons voir un nouveau parti dans l'édifice du parlement.

pour une quelconque compensation. Peu importe cette alléchante compensation, ce ne sera jamais assez encore à leurs yeux et se conformer à ces mesures n'empêchera pas la création d'autres programmes de confiscation dans l'avenir. L'heure de dire non est arrivée. Lorsqu'ils vont se rendre compte que plusieurs d'entre nous n'ont pas l'intention d'abandonner notre propriété, ils vont augmenter la pression. Ils vont menacer de retirer les privilèges d'armes à feu de certaines personnes et en feront des exemples en les accusant au criminel. Les contraintes organisées par l'État sont des mesures sérieuses qui ne doivent pas être prises à la légère. Ils peuvent en dernier recours et toujours pour faire des exemples avec certains citoyens, aller saisir les armes aux domiciles de ces gens. Ces actions n'iront sûrement pas bien. Des saisies chez des Canadiens innocents sont des actions qui sont communes dans les régimes autoritaires.

Des comportements oppressifs de la part du gouvernement sont inacceptables dans une société libre et ne doivent pas être tolérés. Si cela continu, cet oppression mènera à une progression de résistance. Cette résistance

pourra prendre une forme passive ou active, elle sera la démonstration tangible d'un manque de respect grandissant envers la loi et l'ordre.

Nous pouvons toutefois, éviter tout cela en nous impliquant dans la prochaine élection. Rester chez soi et ne pas aller voter n'est pas une option. Voter pour un parti marginal en guise de protestation serait une erreur majeure qui aiderait les Libéraux à conserver le pouvoir. Un effort concerté sera nécessaire pour repousser ceux qui veulent vous enlever vos armes et cela veut dire qu'il faut s'impliquer avec un candidat local. Cela veut dire qu'il faut faire sortir le vote et vous assurer que le candidat sache pourquoi vous êtes là.

Tout parti qui veut remplacer les Libéraux doit nous reconnaître comme force politique importante. L'efficacité de notre travail se mesurera dans le nombre de sièges qui seront acquis au parlement. Si nous perdons cette élection l'avenir sera très sombre pour nous. Lorsqu'un gouvernement si corrompu et qui sème la discorde comme celui-ci veut nos armes, il est très clair que nous devons vigoureusement les repousser pour les empêcher de réussir. N'abandonnez jamais vos armes et gardez votre poudre sèche. 🗡️



# Vice-President's Message

Blair Hagen

## Corporate & Political Attacks

The month of June saw one of Canada's largest delivery companies, and couriers of firearms and ammunition, suddenly and without notice or explanation end service to firearms businesses.

### CORPORATE ASSAULT

Canpar Courier simply informed firearms business clients that their service was ended effective immediately as of the notification. Not in six months, not in two months, not in one month, but immediately. Shipments on manifests would not be picked up, and there was no confirmation that shipments in transit would be delivered. Canpar service representatives refused to provide any explanations for this and offered "former" business clients no alternatives or assistance. Strangely, Canpar's corporate office, a division of TFI International, has also provided no explanation, with no official statement or explanation forthcoming.

This has left Canadian firearms businesses scrambling to find replacement couriers in order to continue to deliver to their customers.

Canpar was the preferred courier for a great many Canadian firearms businesses because of their wide coverage of this country and delivery to many places in northern and rural Canada not serviced by the other large couriers. As you can imagine, there are few shipping companies authorized to transport firearms and ammunition in Canada, and even fewer that service many of the rural and northern parts of this huge and geographically spread-out nation.

What this means is that many Canadians will not be able to order firearms, and more importantly ammunition, and have them shipped, until the Canadian firearms industry can find

alternatives for delivery services. It also means many firearms businesses are suffering economic hardship due to being unable to ship to customers.

The Canadian Sporting Arms and Manufacturers Association (CSAAA) is currently in talks with other courier companies about replacing Canpar. CSAAA is the organization that has represented the Canadian firearms industry and businesses for over 30 years, and they are working diligently for solutions to this and other problems facing Canadian firearms businesses.

This isn't the first example of the kind of economic, social and cultural warfare being waged against the firearms industry by civil disarmament actors in the worlds of government, business and finance. Federal, provincial, city and municipal governments, as well as businesses, service providers and credit card companies, have all acted against firearms businesses in the form of bureaucratic harassment, economic sanction and denial of service over the years.

Here's the thing: Businesses have the right to do business with anyone they want, and not to do business with those they do not wish to. However, the way Canpar so irresponsibly, cruelly and with apparent malice treated their business clients, many of whom have decades-old business relationships with that company, speaks to something beyond a mere business decision. The way this decision was implemented, suddenly, without warning and without time given to clients to find alternatives, is a testament to a broken business model.

### POLITICAL ATTACKS

As we enter election season, I am once again going to harp on several fundamental truths about the situa-

tion facing Canadians who believe in freedom, that, unless corrected, will end up costing us our rights, freedoms and property.

There was a publication back in the early 1990s during a debate over the legislation that was being imposed at that time. It was called, *Observations On A One-Way Street*. It was published by the shooting organizations of Canada, including NFA. It provided statistical evidence to prove the misdirection of the legislative civil disarmament efforts of that time. The title reflected the commonly held belief that truth and facts would not stop government civil disarmament efforts, and that there was no political solution to do so. Today, it is no longer a one-way street, but a freeway with many twists, turns, bends, on-ramps and exits depending on the political opportunities of the times.

Our times have given us the opportunity to elect governments which have promised firearms law reforms and a reversal of the Liberal civil disarmament agenda. Canadians have elected those governments and won legislative victories by doing so. Bills C-19 in 2012 and Bill C-42 in 2016 established firearms law reforms that were unthinkable a decade earlier.

There are many who think these issues can be decided in the courts, that Liberal legislative and regulatory incursions against the rights, property and freedoms of Canadians are so wrong and unconstitutional that any court supporting fundamental justice would have to strike them down.

This is not the case. To seek justice in the courts often takes decades of time and costs millions of dollars, and there is no clear path to justice.

NFA's legal victories over the years have been important, but minor in the overall context of this issue. Our



With Canpar's recent decision to stop shipping firearms and ammunition, Canadian firearms businesses are scrambling to find replacement couriers in order to continue to deliver to their customers.

legislative victories have been far more important in stopping the Liberal civil disarmament agenda and will continue to be so in the future. Legal victories are temporary victories, until rights and freedoms hating Liberal governments can once again find a way to legislate those victories into defeats.

Canada's National Firearms Association has made long-term investments in the politics and culture of our nation. You are part of that. We're not reactionary anymore, we've already planned for the firearms law reforms that can and will take place under a government that believes in the rights and freedoms of Canadians, and which is eager to legislate to protect and advance them.

Prior to 2004, this wasn't possible. The Canadian political landscape was dominated by political parties who had various shades of civil disarmament agendas. Even Canada's right-wing party, the Progressive Conservatives, had legislated against the rights and freedoms of Canadians. That all changed when Canadians, many of you who are also members of NFA and read this magazine, reformed, rebuilt and rebranded the Conserva-

tive Party as a vehicle to again defend and advance the rights and freedoms of Canadians.

Legislative victories require electing governments that respect the rights, freedoms and property of Canadians, and who are willing to legislate firearms law reforms.

Once again, your rights and your property are being threatened, abused and targeted for confiscation for the ideological enjoyment of left-wing progressive fantasists. There is just no other way to say it. It is not for public safety, we know that. It is for ideological satisfaction of a small group of extremist political activists who hold the rights, freedoms and property of their fellow Canadians in absolute and utter contempt.

This is a small but vocal minority who have many connections in the Liberal, NDP and Bloc parties and within the government bureaucracies themselves. Although civil disarmament is not supported by most Canadians, this lobby has tried to coach the issue in terms of "public safety" to hide their true intentions and to make their legislative agenda palatable.

But that hasn't happened. Liberal

gun control excesses and failures of the recent past have made most Canadians skeptical of their intentions. The billion-dollar gun registry destroyed any credibility the Liberals ever had when it comes to firearms policy. Professional police associations have been used by the Liberals in the past to demonstrate and bolster support for their agenda; however, these associations have balked at current Liberal efforts to confiscate the rights, freedoms and property of Canadians.

The civil disarmament lobby has seen the victories of their fellow travelers in other countries in the form of images of piles of once lawfully owned firearms turned in for destruction. They want you to see those images in Canada to satisfy their sick, ideological egos. Make no mistake, your rights and property are being targeted by demented, mentally adolescent ideologues in a race to punish Canadians for celebrating their right and cultural tradition of firearms ownership. Nothing more, nothing less.

They did not learn from their failed legislative agenda of the 1990s. Remember that and punish them at the polls this next federal election. 



# Politics & Guns

Bruce Gold

## Gun Control As A Gateway To Dictatorship?

**T**rudeau and his Liberal Party have focused on two goals: transforming Canada into a socialist state subservient to globalism and sacrificing everything and anything for votes. Public safety is not immune to this agenda and is being readily sacrificed to virtue signaling and the exploitation of low-information voters. Recent events have demonstrated how policy is made in Ottawa. Homicide rates, an issue of relatively low public interest, has gone from 610 in 2015 to 678 in 2019, a tiny increase in a country of 38 million. Only 263 of these were firearms homicides in 2019. This ceased to be a minor issue in 2020 with the mass killing of 22 people in Nova Scotia.

The RCMP response to the attacks quickly became a political problem, as evidence of bungling and incompetence started to appear in the press. It should be noted that decades of underfunding, understaffing and neglect has had an impact on the RCMP. Continually being asked to do more without the necessary resources will decrease capacity in any organization, with equipment and training budgets often the first to go. Furthermore, a police force of scattered detachments barely resourced for day-to-day tasks is unlikely to train for a once in a decade possibility.

Another not-unrelated political problem was the public exposure of the complete and utter failure of the government's multi-billion-dollar firearms control system. All the guarantees of public safety through bureaucratic supervision of the law-abiding failed. The criminal did not have a gun license, he had previously been barred from gun ownership, his guns were unregistered and smuggled, the RCMP knew he was both violent and in illegal possession and had done nothing. All the government's promises on how criminalizing and licensing

every single detail of gun ownership and use would prevent crime failed in the test.

### PURSUING THE AGENDA

Faced with these difficulties and aware of the public outcry over the shooting, Trudeau quickly moved to harness the topic, issuing a series of public speeches expressing solemn concern and virtuous resolve. The Liberals then ignored the official failures and used the tragedy to pursue their ideologically driven anti-gun agenda. As Liberal Party intellectual Lloyd Axworthy stated back in 1998, "Disarming the Canadian public is part of the new human social agenda." They reimagined the issue, shifting it from official failure to a "gun problem," specifically a problem with "some guns." Further, these special guns were a problem in the hands of licensed, continually vetted, legal owners. The May 1, 2020, Order in Council defined these guns as "assault style" or being "too big," that is, over a 20-millimetre bore diameter. Even though their use in crime was extremely rare, they were now next in a long line of "problem" guns that needed banning.

### THE BIG LIE

After preparing the OIC in secret with no parliamentary debate, criminal law in Canada was altered by changing what it applied to and how it applied. About 100,000 Canadian citizens became instant criminals. This was based on the official finding that a whole class of firearms "had no sporting purpose." Considering that hundreds of thousands of these firearms had been used for sporting purposes by hundreds of thousands of Canadians for over half a century, this opinion was an Orwellian example of the Big Lie technique of propaganda. The Liberals then demonstrated their total

contempt for Canadians by declaring that the reasons and facts, if any, behind this decision were Cabinet secrets. This lie was the basis for thousands becoming instant criminals and a possible \$2 billion in property losses to their owners.

### DEFINITIONS

Another problem was created by the Liberals' refusal to establish a legal definition for the banned "military style" firearms. This was a clever political move, since it allows the Liberals to expand the category when they choose. They also refused to use the true definition of a military "assault rifle," which included the ability for automatic fire (they kept the scary name). The immediate result was that other than specifically named firearms (1,500 firearm types), no one had any real idea what was prohibited or not. The RCMP promptly added more confusion to this mess by using the secretive Firearms Reference Table to prohibit thousands more firearms as variants not listed in the OIC. As a result, some 105,000 restricted firearms have been reclassified as prohibited, but this could go as high as 250,000 depending on bureaucratic whim or political fancy. This legally hazardous chaos is further compounded by the Liberals' declaration that from now on the system will be evergreen with secretive FRT gun banning as an ongoing policy. Canada now has effectively secret, ever-changing criminal laws. If this process is politically acceptable to you as a Canadian citizen when applied to guns, one might ask where else will you accept it?

Of course, one could get around this by checking the FRT every day to find out if one is now a criminal. Another difficulty for the law-abiding is that the amnesty ends on April 30, 2022, and only applies to the firearms spe-

cifically listed on the OIC and variants. However, there is no legal definition for variant. If another firearm is newly prohibited that is not a variant, it is not covered by the amnesty. So, any additional firearms moved to prohibited may be covered or not, depending on whether they are a variant or not.

As if this totalitarian exercise in gotcha laws was not enough, the Liberals went further. Under the Firearms Act, section 74, a holder of a registration certificate can go to a judge for a reference hearing where the judge can confirm or reject the new classification. Section 75(2) states that the judge “shall hear all relevant evidence presented by or on behalf of the chief firearms officer, registrar or provincial minister and the applicant or holder.” This legal right, intended to prevent arbitrary injustice, is a serious problem for a government that had just arbitrarily changed 100,000 registration certificates.

Trudeau, in an act of basic dictatorship, had an answer – he simply declared that the registration certificates had been nullified. This raises basic problems about the very nature

of governance and the law in Canada. There is no such thing as nullification in the Firearms Act. The OIC is very specific in that it is changing the registration status of the listed firearms from restricted to prohibited, both legally established categories. The OIC makes no mention of nullification. Further there are thousands of Canadians who have a prohibited license and can legally own and use, with conditions, prohibited firearms. So, the law around the prohibited classification is now completely free floating. There are prohibited firearms that can be used by those with a prohibited license (established in law prior to the May 1 OIC) and firearms classified prohibited (no legal definition) which cannot be used.

**CONCLUSION**

Every single aspect of the May 1 gun grab and the various firearms acts is aimed at the law-abiding firearms owner. Since every aspect of firearms misuse is already a crime, further restrictions have no impact on criminals who are already breaking the law. To demonstrate how off target all this

is, we can note that in an average year only 2.27 per cent of homicides are committed with a registered gun and only 1.21 per cent are committed with a gun registered to the accused. Trudeau plans to spend around \$1 billion on the May 1 gun grab alone. (Funding the RCMP could desperately use!)

In the process, the Liberals have run roughshod over the basic principles of responsible government and the rule of law. Criminal law is being created by administrative fiat. Further, this was done for the transparent purpose of negating a legal right established by law (the legal right to reference hearings). This is a betrayal of our democratic traditions through a process wholly offensive to our liberties.

Be very clear, gentle reader: creating criminal law by bureaucratic decree is an attack on responsible government itself. If this is acceptable to the Canadian people and the courts, then there will be no further need for parliamentary debates or votes. Anti-gun policies are now being used to change how Canada is governed in the hope that many will only see as far as “we don’t like guns.”



Nathaniel Milijour



# Preserving Our Firearms Heritage

Gary K. Kangas

## Hunting Revelations

**H**unting is universal; it transcends borders, cultures, age and gender. Hunting is part of our DNA whether we know it or not. There are millions of species and subspecies of creatures on planet Earth; however, there are only two basic categories: predators and prey. These two groups can be easily identified even at a distance. How, you ask? Just look at them. Typically, predators have their eyes set side by side in front and have binocular vision. Animals in the prey category will have their eyes set on the sides of their heads, giving them the ability to see almost 360 degrees around them. The basic survival mechanism of prey species is detection and flight, although they will fight when it comes down to being captured or cornered.

Humans are predators. We have teeth that are rippers and grinders, as we are omnivorous like bears and pigs. Humans, bears and pigs can, of course, also become prey and will then fight being caught or eaten. There is a long list of critters that fall into this category.

Over millennia, humans developed hunting tools which could also be used as defensive tools in a hand-to-claw contest with beasts such as wild boars, bears, big cats or any other large predator. We are not able to outrun these animals, nor do we have their strength. Early humans, however, did discover that these big, strong predators were also very tasty.

The development of hunting tools may have begun with a stick sharpened on the end, and viola, a primitive spear. Then innovators discovered if you affixed a sharpened stone or flint point, penetration improved, and game was harvested more efficiently. Another creative thinker discovered if you could launch a small, light spear, you could harvest prey at a distance, and the bow and arrow



**Cape Bushbuck harvested in South Africa with a 6.5x55 Mauser rifle.**

were born. And so, over time, with the discovery of metals and more sophisticated manufacturing techniques, the longbow, crossbow and other hunting implements were developed. With the invention of black powder, the world of hunting and defense changed completely, leading to the creation and development of firearms. A new era opened, and during the past 700 years hunting firearms have become sophisticated and reliable.

Hunting for some, including myself, is recreation, but for others it means survival and the preservation of their way of life. My Grandpa Kangas admitted he was not a particularly good shot, so he depended on a 10-gauge shotgun to feed his young family on the homestead. As the family grew, my father and his brother became crack shots, and by their early teens were feeding the family. My Dad became the principal small and medium game getter with his single-shot Stevens 25-20.

My Dad was also an avid upland game bird hunter, and my fondest memories are bird hunting with him. I recall crisp, clear, warm, sunny fall days in central Alberta, Dad and I walking abreast with our shotguns,

he with his 12 gauge and me with my trusty Cooney 20 gauge at the ready. I remember the excitement when the birds would break from cover — the moment was exhilarating! Dad would also organize hunting adventures in search of water birds with three of my young friends and myself. I was never able to master wing shooting at these birds, as they seemed to be able to elude me with ease. My friends, however, proved to be quite adept. Other adventures with my three friends and myself included gopher hunting on farms not far from where we lived. Gophers were certainly a challenge, but all of us were able to bag quite a few. In my mid-teens, I would visit my maternal grandparents at their farm and would hunt gophers on my own, developing into a competent shot.

There are hunters worldwide, and my research revealed some surprising information regarding hunting and hunters. I searched for the ratio of hunters per 1,000 of population, and the results proved to be a revelation. For many years, Finland had the highest ratio of hunters due to having a very outdoor-oriented population and a high rate of firearms ownership. However, it has now been displaced



**LEFT: Elk** harvested in central BC with an 1886 Winchester in 45/70 Gov't.

**BELOW: Bird hunters** in central Alberta, circa 1930s.

by Ireland. The following numbers list the ratio of hunters per thousand of population: Ireland being number one at 72.8 hunters per thousand; next is Finland at 55.6; then Cyprus, 52.3; the U.S. has 46.22; followed by Norway's 35.4; Canada is next at 34.4; then Sicily, 33.3; Denmark, 28.5; Portugal at 22.5; and Malta, 22.1. These are the top 10 hunting-oriented countries in the world.

There is a great deal of diverse hunting opportunities in the U.S., Canada and Nordic countries, but what do they hunt in some of these other countries, such as Ireland, Cyprus, Portugal and Malta? The revelation is astonishing! In Ireland, hunting opportunities abound, red deer, fallow deer, sika deer, badger, red fox, feral goats and all manner of different types of birds, being upland game and water birds. Then there is small game such as wild cats, mountain hare, pine marten and squirrel. Guided hunts are available to tourists for all the above species. Check out the [bookyourhunt.com](http://bookyourhunt.com) website to learn more. The next surprise is Sicily. The opportunities there include migratory birds, upland game birds, stag, wild sheep, wild boar, hare and fox. Portugal has much the same type of game. The real surprise is Cyprus

and Malta. I did not realize that Sicily, Cyprus and Malta are on the major migratory bird route between Europe and North Africa. Cyprus and Malta have short but productive shotgun seasons which include Cyprus wood pigeon, turtle dove, quail, chucker, thrushes, woodcock, Malta turtledove and quail.

And finally, hunting licenses have been issued in various jurisdictions since the Middle Ages. In the U.K. and Europe, land belonged to the gentry; however, citizens could get hunting licenses. In England, hunting licenses can be traced to 1087. Hunting licenses have evolved to become multi-purpose instruments, addressing public safety, proficiency with hunting tools, regulation and conservation, as well as revenue generation. Obtaining a hunting license in Canada requires a hunter training course. The regulations for some bird species are set by the Canadian Wildlife Service, an agency of Environment Canada. Other hunting matters are regulated by provincial and territorial governments. Similar mechanisms are in place in most hunter-oriented countries. Hunting is a large component of preserving our firearms heritage in Canada and worldwide. 🍷



#### SOURCES

Wikipedia, Statistics Canada, Game Hunting Ireland, [bookyourhunt.com](http://bookyourhunt.com)





# SUPPORT PRODUCES RIFLE ACCURACY

Monopods, bipods & tripods

*BY DUANE RADFORD*

While professional photographers all have a tripod or a monopod available for use, these types of support haven't always been the rage in the hunting and shooting world. The stakes are high for photographers who need to support their camera to get the perfect shot, and even more so for hunters looking to deliver an equally perfect shot, which is why support systems have become increasingly popular among rifle shooters.

Bipods are the most popular accuracy aid among hunters, with the word derived from the Latin and Greek roots "bi" and "pod" meaning "two" and "foot," respectively. A monopod takes away one support leg, increasing mobility at the sacrifice of stability. And, of course, tripods are three-legged supports which provide the ultimate in stability.

## **BIPODS**

I purchased my first bipod about 20 years ago. It was manufactured by Harris Engineering Inc. of Barlow, Ky. If I recall correctly, it was one of only a few brands on the market at the time. The first model I bought had a non-pivoting base, a shortfall for the type of hunting I did, especially for running shots. So, I sold it for close to what I paid for it. Subsequently, I purchased a Model 25C Harris bipod that features longer, extendable legs with a pivoting base, which I've used ever since. According to their website, Harris now offers 27 different models.

With some practice, it's possible to quickly attach the bipod to the sling swivel stud found on the forearm on most conventional rifles – ditto for detaching the bipod. The Harris is a relatively light-weight model that permits normal use of a sling. You can use the

bipod with the legs unfolded for shooting from a prone position, which is the most accurate field position. However, when hunting it's often necessary to shoot from a sitting position, in which case you can easily and quickly extend the three-piece folding legs. The sitting position makes it possible to shoot above ground-level vegetation which might otherwise get in the way. This bipod is sturdy, easy to maintain and I've never had any issues with it since I purchased it, even in weather down to -20 degrees Celsius.

Bipods have been popular with hunters for decades, while monopods and tripods have been gaining ground more recently.

## **TRIPODS**

No doubt, the oldest version of tripods is the practice of lashing three long sticks together a short distance from

one end, allowing the hunter to rest the rifle in the fork. In Africa these are simply called shooting sticks. I've never been on an African hunting safari, but I've been on several game drives in South Africa, Botswana and Zimbabwe where the thorn bush is abundant. Thorns are serious business and can easily puncture tires on safari vehicles. You'd be crazy to sit or lay down for a shot for fear of being injured by the ubiquitous thorns. Additionally, shooting sticks get you above the vegetation; however, they haven't really caught on in Canada, but their day may come.

Canadian hunters who use tripods are more likely to be using a modern version, with extendable carbon fibre legs, a ball head and complete with a shooting saddle. And that saddle can grip a rifle's forend tightly enough to hold the rifle without any additional support from the shooter. Representative of this version of a shooting rest is the tripod I worked with when preparing this article. It was a Leupold Mark 5 CF-440 tripod, which features a 60-inch extended length, a collapsed length of 21 inches and a weight of 5.4 pounds, complete with the saddle. This is a crown jewel of a rest if I ever saw one, and of outstanding quality.

### MONOPODS

With only one leg for stability, monopods potentially offer the least amount of accuracy assistance to the hunter. However, they counter that limitation with the potential to be the lightest in weight and the least expensive. They can be versatile devices, as they can support a rifle via a simple V-shaped bracket, or by using the same kind of shooting saddle found on tripods.

Popular monopods include the Primos Trigger Stick, which adjusts for length by squeezing a lever positioned just under the rifle support, and photography monopods adapted for rifle use. The latter is what I used while researching this article, specifically a sturdy Manfrotto monopod with a folded length of 27 inches, a maximum height of about 64 inches and weighing in at two pounds. I added the Leupold shooting saddle to support the rifle.

### RANGE WORK

I did a shooting test at a local range,



Bipods are likely the most popular type of shooting support system in use by hunters.

intending to show the difference between shooting with and without support by measuring the relative accuracy of each type of rest in simulated hunting conditions. Range conditions were ideal, with calm winds and clear skies. However, I was in less-than-ideal condition myself as I began experiencing rotator cuff issues, even though I elected to use a light-recoiling 204 Ruger rifle. I've been putting off physiotherapy because of the COVID pandemic and it caught up with me when I began experiencing major pain towards the end of the test, with my shoulders hurting so much it was hard to hold the rifle steady. As a result, the test results were skewed and produced only a couple of definitive results.

First, shooting with the tripod produced the best overall group. No surprise there. And second, shooting without some kind of "pod" support is less accurate than using any one of the three "pod" options us hunters have available. Again, no surprises.

Even if my test had produced a gigabyte of useful data, it wouldn't



Modern tripods are often equipped with a shooting saddle, which clamps to the rifle.



Like bipods and tri-pods, monopods are available in a broad range of sizes.



This whitetail buck was taken at 225 yards with the assistance of a bipod.

necessarily have been valid for someone else. So, perhaps it's all for the best. If you want the most useful and practical data for yourself, you need to hit the range and test all three support systems to see which one is right for you. By teaming up with friends or borrowing some equipment, you can evaluate all three pod systems to determine which gives you the best accuracy improvement. And don't forget about deployment speed. In a hunting situation, being able to shoot quick is often important, so evaluate what you're testing from that perspective as well. Add in weight and cost, and the

equation becomes more complicated, but in the end the solution is the one that's right for you.

#### CONCLUSION

Personally, I won't leave home without a bipod on my rifle, as most hunts in western Canada may require shots over 225 yards. When the chips are down and you must make a tough shot, some type of support makes all the difference in the world. Sometimes you have to make a precision shot with no room for error, like the time I was on an antelope hunt and day four found me still searching for

a shooter. I spotted a herd of three bucks bedded down just below the crest of a hill, which sheltered them from a strong westerly wind. There was a chill in the air, so they were soaking up some sun out of the wind. They had a panoramic view of the lonely prairies from their lofty vantage point and could see danger coming from miles away, except from the north.

So, out of sight, I slowly worked my way behind a ridge to get into a shooting position. The stalk took the better part of an hour. I crawled on my stomach the last several yards before I peeked over the crest, trying to spot the herd. Sure enough, the three bucks were bedded down 125 yards away. A trophy buck with heart-shaped horns was bedded down quartering away from me, looking towards the east. I could see his mane rippling in the wind. There was only one good shot opportunity, at the base of his neck, just above his shoulder. I positioned my bipod and settled the crosshairs low on the back of his neck, confident in my shot. At the crack of my rifle, the buck folded, its neck broken by a 130-grain bullet. This is just one of several similar stories I could tell about successful antelope, elk, moose, mule deer and white-tailed deer hunts, where the only shot opportunities were challenging and would have been near impossible without some type of "pod" support. 🍀



# TRAINING PRODUCES RIFLE SPEED

One, two, three – bang!

*BY TIMOTHY FOWLER*

**“**You missed more opportunities to kill a deer this year than some guys have in a lifetime,” said my brother, as we loaded a nice mule deer buck into the back of his Dodge pickup on the last day of the hunting season two decades ago.

I am what you call a late-onset hunter, starting in the game at age 39, when I first picked up a gun in a serious kind of way. My first hunt the year before had gone well – one day, two deer. We saw fields of deer, counting 168 over the course of the single day’s hunt. The deer I chose waited patiently for me to find a rest, acquire the target and squeeze the trigger. We had my first freezer full of venison, and I wanted a repeat the next year.

But the next year didn’t go so well. There were fewer deer, and I just couldn’t get on them fast enough or accurately enough to close the deal. I found success on a mule deer buck in the last hour of the deer season. What caused those misses was mostly timing, some of this due to my equipment and the reluctance of most deer to hang around waiting for me to sort out how to shoot. I could not make an effective hunting shot. My gun of choice at that time was a Remington Model 7600, a pump gun in 270 Winchester. It’s a perfect deer cartridge in a fast-cycling and accurate gun, which will shoot 1¼-inch groups at 100 yards all day long with good support. My problem in the field

was finding appropriate support that offered a clear shot. I was chasing fence posts or poplars to steady my gun, and in those precious seconds, my opportunities for a shot disappeared with the targeted bucks.

#### **MOTIVATION TO IMPROVE**

I took that quote from my brother as a verbal slap in the face. My initial anger and offense morphed into motivation to learn how to shoot accurately and faster, with my goal being to get an accurate shot off in three seconds. Count it out loud with me now: one-one-thousand, two-one-thousand, three-one-thousand – BANG! Three full seconds is both a long time and a short time. However, it’s time enough if you make efficient use of the time you have.

Okay, it could also be that I wanted to redeem myself in the face of brotherly criticism. In any case, here is how I did it.

#### **BOLT ACTION**

First, there were some changes to my equipment and routine required. A bolt-action rifle would accept a bipod, and the action could be cycled for the second shot without breaking contact with a rest. A pump-action must come away from the rest to be cycled. I needed a new big game rifle, and Remington had just launched the Remington 700 in 300 Remington Ultra Mag. The hunting magazine hype drew ▶

me into this round, which is faster than the famous 300 Weatherby Magnum. Of course, this meant I needed a second, light-recoiling centrefire to practice with, and a Remington Model 700 bolt-action in 223 Remington filled this requirement. I decided on my two-hour drive home that last day of November 20 years ago, that I was going to learn how to shoot fast and accurately, whatever it took. I needed to learn how to move from standing with my slung rifle to sitting, bipod extended, target acquired, safety off and trigger squeeze started, all in three seconds.

### HANDLOADING IMPROVES ACCURACY

Anticipating some serious shooting, and after calculating the cost of several thousand rounds downrange, I decided it was time to learn to handload. So, I loaded and reloaded hundreds of rounds, spending many hours at the range shooting targets to verify handloads and test my shooting ability to 500 yards. This range work verified the accuracy of my rifles and helped me sort out the best handload for each of my rifles. But I needed to practice deploying my rifle in actual field situations. This led me to the gopher fields.

In Alberta and Saskatchewan, much of the prairie grasslands are full of Richardson's ground squirrels, locally known as gophers. Ranchers are typically happy to have safe shooters reduce the population of gophers, particularly where livestock are pastured, as the gopher's holes pose a leg-breaking threat to cattle and horses. A horse or bull with a broken leg means an assured death and potentially a complete loss to the rancher. I shot thousands of gophers, many with rimfire rifles. While the rimfires helped with much of the field skill, I still wanted to use my centrefire and practice my big game skills, while increasing my speed to deploy and improve accuracy.

### FAST, ACCURATE & DEADLY

Because my goal was to improve the speed at which I could put accurate shots on big game, I wanted to replicate this situation as much as possible. The routine that accomplished this was to walk with a rifle in the grasslands until spotting a gopher. At that point, I would start a three-



Bench time is good but will only take you so far - hunting requires practice under field conditions.

second count.

The moment I spotted a gopher, I said quietly to myself, "One-one thousand," and extended one of the bipod legs while crossing my legs, squatting and sitting on my butt. At two-one thousand, I pulled the second leg and pushed the rifle ahead of me toward the target setting the bipod on solid ground and leaning into the buttstock while pulling the rifle into the pocket of my shoulder. At three-one thousand, I acquired the gopher in my scope, released the

safety with my thumb and started the trigger squeeze. I kept counting and kept practicing. My speed improved, as did my accuracy. I kept a tally on one of those clicker-counters the greeter at Costco uses.

Many days I shot several hundred gophers. Often, I would shoot 10 or more on a single squat, so I was getting lots of accuracy testing and practice. It is worth noting that the two-inch vital zone of a gopher at 100 yards is equivalent to a 10-inch vital zone of a deer at 500 yards. No, it was

Can you get into shooting position in three seconds?



A gopher at 100 yards is a target similar in size to a deer at 500 yards.



The ability to deliver a fast, accurate shot using the best support available is a key hunting skill.

never a goal to shoot deer at 500 yards, but the point is to demonstrate the level of accuracy required to hit gophers at 100 yards consistently, and I shot many at 250 yards and beyond.

I continued to shoot throughout May, June, July, August and even into September. I would shoot four boxes of 223 Remington loaded with 40-grain Hornady V-Max bullets on a Saturday and reload them on Sunday afternoon, only to repeat this the next weekend.

#### HARD-EARNED SUCCESS

"Somebody learned how to shoot!" my brother said that fall after I tagged my fifth deer in his presence. The shots were perfectly placed and fast. It was one of those years where

three tags came with an antlerless mule deer license, add a mule deer buck, a regular whitetail, a pair of supplemental whitetail deer and a whitetail antlerless tag and you will see all those deer were the bonus of living in Alberta and learning how to shoot.

It's been 20 years since that focused effort to learn how to shoot faster. I have missed some shots since then, but not many. Every summer, I still handload a few boxes of 223 Rem. ammunition and shoot and shoot and shoot. On occasion, I still count, "One-one thousand..." 🎯

Check out the author's podcast, at <https://podcasts.apple.com/us/podcast/elevate-your-game>.



#### MATCHING TRIGGERS

A few years ago, a couple of smart Canadians solved the trigger creep/ make-it-break-crisp problem. They formed Trigger Tech, a Canadian manufacturer of top-notch aftermarket triggers for Model 700s and their clones. Their triggers are so good there's been a seismic shift from all other after-market triggers to Trigger Tech. I installed a matched set of Primary Trigger Tech triggers on two of my Model 700s: my stainless barreled, laminate stocked 300 Ultra Mag and the stainless fluted barreled 223 Rem. Now each of these rifles has the same trigger with identical trigger pull weights. This makes the muscle memory I learn on my light-recoiling varmint rifle perfectly transferrable to the big game rifle.





Understanding how to load and unload safely and quickly is just as important as being able to shoot accurately.

# BECOME A BETTER WINGSHOOTER

Tips & techniques to improve shotgun success

BY KEVIN WILSON

On my 14th birthday, my parents gave me my first shotgun – a single-shot 20 gauge. I cherish the memories of Dad taking me out to my uncle's farm to shoot box after box of clays. A ton of fun at the time, it wasn't until years later that I realized why he had me shooting so much. Indeed, the bonding time was great, but when the fall waterfowl season opened, I quickly realized the benefits. Shouldering the gun, acquiring the bird, adjusting for speed, sorting out the lead, pulling the trigger and then sustaining that lead by following through were all second nature by then. The lesson learned? If you want to become a better wingshooter, you need to spend time practicing.

## SHOTGUN CHOICE

Believe it or not, the shotgun you choose can affect your shooting. If your goal is to become a better shot,

really think about what suits you best. Consider the type of hunting you plan to do, then choose a gauge and an action type, with options including a side-by-side, over-under, pump or semi-automatic. We can all learn to shoot just about any gun, but in the end, size and fit will make it a lot easier, in turn improving accuracy. As you shop for a shotgun, be sure to consult knowledgeable shooters about length of pull and having the buttstock sized to fit you properly. Few things throw off accuracy more than a gun that doesn't fit.

## BEFORE SHOOTING

Knowing your shotgun and becoming familiar with how it works and feels is your initial priority. Before visiting a range, safely practice shouldering, pointing and swinging your unloaded firearm. Many professional shooters do this in front of a mirror daily to

check form and instill a kinesthetic comfort with their gun. Be sure to stand mostly upright and avoid lowering your face or tilting your head to the firearm. Use both hands equally and mount the gun at the same place on your face each time. Remember, consistency is important. The most common mistake made by new shooters is mounting to the shoulder versus the face. It can be beneficial to do daily repetitions with an unloaded gun to establish familiarity, such as 10 swings and mounts. A level sight plane is imperative, so make sure you are pointing directly down the flat rib of your barrel.

## LEARNING & SAFE SHOOTING

Whether you are new to shotgunning or you just want to improve your skills, shooting schools are always an option. A quick online search will reveal what's available in your area. For >

most, however, it's more a matter of understanding some basic principles and putting rounds through your gun. The best way to do this is by either visiting a range or picking up a clay thrower and getting out to the back 40 and shooting in a safe place.

Always consider safety first. Licensed ranges have their own safety rules for shooting clay targets, but if you're not on a range, give yourself a large, safe shooting zone of at least a couple hundred yards. Regardless of whether you use a hand launcher or an electronic one, be sure that the shooter is a safe distance and angle away from the person or machine launching the clay targets.

### NECESSARY EQUIPMENT

If you're a DIY kind of person, it doesn't have to cost much. Champion makes a variety of affordable and more elaborate launchers. For example, a basic hand-thrower can be picked up at Canadian Tire for around \$15. Similarly, Champion's High Fly String Release Manual Trap thrower costs about \$50. If you want the Cadillac of electronic throwers, Champion makes one called the Workhorse Electronic Trap Thrower that auto-feeds successive clay discs and can be had for around \$450.

As far as clay targets go, again I'm a big fan of Champion products. Their new BioBird clay targets are made of naturally occurring forestry products and limestone. In other words, they are non-hazardous and biodegrade — so no clean up of shattered discs is necessary. This innovation is a great alternative to traditional petroleum-based clays. The best part, they only cost about \$15 for a box of 90 targets.

Shotshell manufacturers offer a wide range of shell and pellet configurations, but for practice shoot lighter loads. Lead shot loads are the least expensive and readily available in light recoiling options which contain 7/8 to one ounce of shot. This ammunition is easier on the wallet and on the shoulder, with a good choice being Winchester's Super Target shotshell with 1 ounce of #8 shot.

### ACHIEVING CONSISTENCY

Wingshooting is a lot like golf; proficiency is related to the amount of time we spend practicing and in the field hunting. Every year I have the



good fortune of spending time with some truly exceptional wingshooters. Seldom do these guys miss. The key to their success is routine practice on with clay targets and game birds. Additionally, their guns fit them properly, they have exemplary form, and they have an intimate familiarity with their shotguns. The swinging, mounting, pointing, leading and shooting process is second nature to them. Several years back, I considered myself a fair shot. Today I'm no slouch, but I certainly don't shoot like I once did. The difference is inconsistency. While I shoot clays occasionally and hunt both migratory birds and upland game more than most, I can always use more practice. That said, I've learned certain fundamentals are key to wingshooting success.

### SHOOTING FORM

When we're shooting clays, it's easy to practice good form. In the field, not every situation allows us to have perfect form; however, when things become kinesthetic, reflexes tend to move our body into position to best achieve accuracy.

As you practice, allow your instincts to guide you as you swing and shoulder the gun. Avoid mounting and then swinging, as this wastes valuable time. Proficient shooters swing to follow their target and mount the shotgun simultaneously. Know that you've developed your pointing instinct your entire life. Shotgunning is less about aiming and more about pointing. Rely on this instinct to assist you as you ac-

quire your target. Pull the trigger the instant you've acquired the necessary lead and the target is in focus.

### PICK YOUR TARGET

In the field, a common mistake made by new hunters is shooting into a flock rather than picking one bird. Doing this will invariably lead to frustration. Be sure to pick a single target. When shooting clays, consider adding doubles or even triples to your practice sessions. This forces you to prioritize. Focus on one, then shift quickly and smoothly to the next. When shooting multiple targets, it's good practice to take the lower one first, as recoil will help raise the gun as you follow through to the second.

### LEAD & FOLLOW THROUGH

One of the most important aspects of wingshooting is leading the target. Of course, this varies in each wingshooting situation. The necessary amount of lead, including hold-over and hold-under, depends on the type of shot presented and your style of shooting. If possible, shoot clays crossing from left to right and vice versa, as well as approaching targets and those flying away. If you find you are missing crossing targets by shooting behind them, try doubling your lead. For oncoming and flying away shots, the required lead may be slightly above, below or straight on, depending on the speed and height of the target. Again, experimentation will confirm what is required. Sporting clay courses provide exceptional practice

opportunities at variable speeds for those looking to experience extreme variations in shooting circumstances. With some experimentation and practice, you should catch on to the required adjustments in short order.

A great field shooting example is when Canada geese finish in a field spread. Because they are so big, many hunters lead them too much. Finishing birds are usually flying much slower, so more or less pointing directly at them may be in order. By comparison, high flyers or birds crossing perpendicular to your spread at flying speed will require some lead, often by half or even a full body length, depending on distance and speed of flight.

Following through, or continuing to swing, during your shot is imperative. Competitive shooters often use the term sustained lead. In lay terms, this refers to follow-through. By pointing with the required lead, then pulling the trigger, the sustained lead, or continued swing, at the speed of the moving target will improve your hit ratio.

#### STEADY YOUR NERVES

Whether you are shooting clay targets or live birds, the idea is to pick out the target, then point and shoot quickly. Timing is everything. The key lies in learning to shoot when the opportunity is most ideal. With clay targets, this is often at the height of the target's flight, although it can vary depending on each shooter's aptitude, skill and preference.

Ducks dropping into decoys fly fast, and geese, well, they're simply a sight to behold. It's tough not to get excited as they swarm a decoy spread, but there's plenty of time to react after each shot volley, so keep your cool and make your shots count. Remember, any extra movements take time and neophyte shooters often miss due to the fast nature of wingshooting. In turn, nerves often get the best of us. Stay calm, be steady and concentrate on making the shot.

#### CLEAN UP

As with all shooting disciplines, clean-up is required, both after shooting clay targets and after hunting. Picking up unbroken clays allows you to collect and use them again in the future. If you're shooting on your own at the farm or out on Crown land, clean

**RIGHT: For practice sessions, the author prefers Champion BioBird clay targets, made from biodegradable materials, and Winchester Super Target ammunition.**

**BELOW: Shooting from layout blinds involves the extra movement of transitioning from a reclined position to an upright sitting position. With a little practice, it becomes second nature.**



up what you can. Solid hits virtually disintegrate clay targets, but you can often grab larger pieces for proper disposal. Again, clean-up is another reason I'm a big fan of the newer environmentally friendly clay target products.

The one constant clean-up requirement is empty hulls and wads. Always pick these up. Wads will be scattered anywhere from 20 to 50 yards out from where you were standing to shoot. Many are clear in colour or black, making them difficult to see, so take your time scouring the ground to collect as many as possible.

Keep these things in mind, spend lots of time shouldering and swinging with an unloaded firearm and then put plenty of rounds through your shotgun in practice. Do this and you'll find your wingshooting skills will improve greatly. 🍀



**ABOVE: Practice time spent mounting and swinging an empty gun at home will pay off in consistency in the field.**



# DIAL OR HOLD?

Demystifying hunting scope reticles  
*BY LOWELL STRAUSS*

**D**o you simply zero your hunting rifle at 100 yards and then hold the crosshairs above the target point for shots at longer ranges? Many of us do because it's fast and effective. Depending on the cartridge's ballistics, out to 300 yards or more, holding on the shoulder, top of the back or a bit above consistently delivers the arcing bullet into the animal's vitals. But past about 400 yards, holdovers with a plex-style reticle become tricky; by 600 yards, it's more luck

than skill. Well, at least for me! For shooting beyond about 350 yards, I use one of the modern options to compensate for bullet drop.

Elevation turret dials and secondary aiming points in the reticle are two advances in ballistics and technology that remove long-range guesswork, so when that big buck shows himself from across the far meadow, you can shoot with confidence. But these systems are not a silver bullet; as target distances



stretch longer, both shooter skill and the ability to compensate for wind come into play.

#### **"PLANE" TALK**

Most hunters are familiar with second focal plane (SFP) scopes, as they are the most common type in the field. In an SFP scope, the reticle is located behind the magnification lens. This means the reticle's appearance won't change as you zoom in and out, because the target image

is already magnified independently. In contrast, a first focal plane (FFP) scope's reticle grows in relation to the target image because of its location in the scope.

Why is this important? Because, as we'll discuss, using the scope to its full potential requires an understanding of these mechanics. One type is not necessarily better than another, but understanding their fundamental differences allows you to hold on the target accurately.

#### **RETICLE REVOLUTION**

The first documented telescopic rifle sight was invented around 1840. The original crosshairs, as their name implies, were made with strands of hair. Later, scopes substituted fine copper or tungsten wires in place of the fragile hair. Wire is still used for crosshairs today; however, many manufacturers now etch complex reticles onto a glass lens within the riflescope. Etched reticles allow for finer crosshairs, as well as accurate >

and detailed primary, secondary and tertiary aiming points. Each hashmark on these complex reticles has a known width and spacing (subtension). Because of these precise marks, shooters can precisely hold for specific bullet drop and, as a bonus, they can use the reticle as an optical tape measure -- perfect for estimating distance.

Reticles from simple to complex are available from riflescope manufacturers, so I reached out to Reg Wales, a technical field advisor at Vortex Canada, to learn more. "A simpler reticle is a good choice for hunting," noted Wales. "Christmas-tree-styles are overly complicated and can be difficult to see on a dark-coloured animal. The details on complicated reticles can also be washed out by mirage. Illuminated reticles also help when shooting in low light."

#### BULLET DROP COMPENSATOR (BDC) RETICLES

Gravity starts pulling a bullet toward the Earth as soon as it leaves the muzzle. Scope manufacturers therefore calculate bullet drop values, adding aiming points on the lower half of the vertical crosshair, to account for a bullet's falling trajectory. When zeroing a BDC reticle scope, I adjust the centre aiming point until it aligns with the bullet's impact point at a set distance, typically 50 yards for rimfire or 100 yards for centrefire, as specified in the owner's manual. Most BDC reticles include three to six points that predict bullet drop at a given range. The spacing between these aiming points increases with distance because the bullet loses velocity. BDC reticles take much of the guesswork out of holdovers because these added aiming points provide a close-to-dead-on hold for longer shots.

BDC reticles may be specific to a cartridge/bullet/velocity combination or generic. For reticles intended for a range of cartridges, the specific holdover distance values can often be calculated on the manufacturer's website or ballistic app. In an imaginary example, the first mark may correspond with 211 yards, the second with 337, the fourth with 446 and so on. Even cartridge-specific BDC reticles, a 308 Win with 168-grain bullet for example, are set up using average values, even though multiple factors affect bullet trajectory, including bal-



The elevation turret of this scope is marked in yards, allowing a shooter to "dial the distance" for a hit. It's simple, but it doesn't allow for changes in environmental conditions affecting trajectory.

listic coefficient, velocity, air temperature, humidity and elevation.

In second focal plane scopes, it is important to understand that the BDC points change with magnification and are correct only at one magnification setting; note this when printing your drop charts.

Other manufacturers take a slightly different approach, using BDC marks at fixed distances of 100, 200, 300, 400 and so on. These values roughly correspond to cartridge ballistics at a certain magnification power. My 22-250 rifle's pet load equates to 17.2x for a dead-on hold at these pre-defined BDC distances, even though my scope has a 20x max magnification.

Certain companies create custom

BDC reticles to match the shooter's specified ballistics for a cartridge/bullet combination. Specialty scopes like this are married to a specific rifle and typically are quite accurate within their defined parameters.

This summer, I had an opportunity to test a Hawke Vantage 30, 4-16x50 rimfire scope. The model I used was designed around 22LR High Velocity (1,260 feet per second/384 metres per second) ammunition. It's an excellent example of why it's important to read the owner's manual first. For this scope, I zeroed at 50 yards and found that at 9x magnification, the pre-calculated aim points were true out to 200 yards (a long yet satisfying poke for a .22LR). The scope can also be used with a 50-metre zero, with aim points correct in metres when the magnification is set to 7.8x. With a little experimenting, I also figured out

the magnification setting for accurate aim points for slower and faster ammunition. If you want an inexpensive way to test and train with a BDC reticle, this scope from Hawke is a good choice.

#### RETICLES WITH ADDITIONAL REFERENCE MARKS

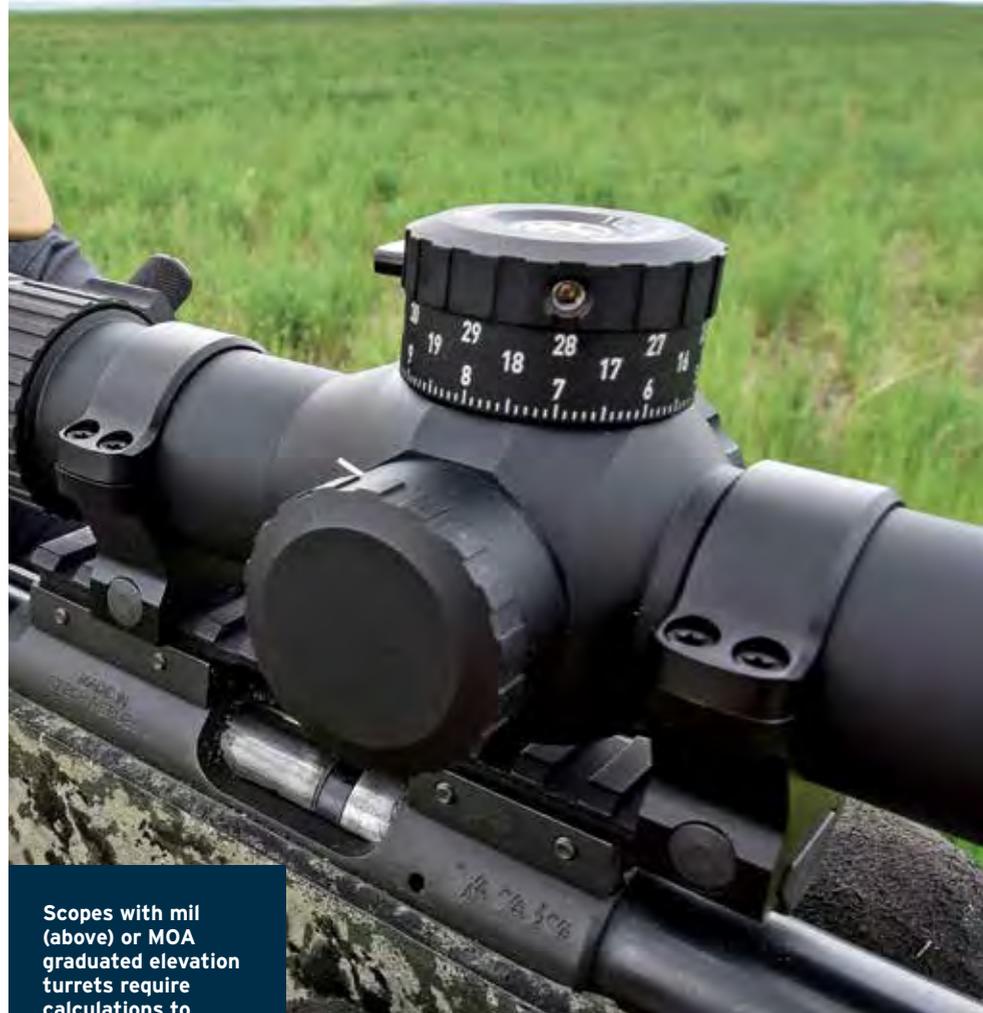
Reticles such as mil-dot (military dot) or MOA (minute of angle) use a fixed scale between holdover marks. By knowing the trajectory, the shooter can accurately hold for bullet drop. Like BDC, the marks change in relation to the target image, relative to magnification, if the scope is an SFP model. In most cases, it's accurate at the scope's maximum magnification setting; however, this is not always the case. If it's an FFP scope, the marks are correct at all magnifications. Double-check the owner's manual if you are not sure.

To test your scope's exact magnification setting, Wales suggests taking a sheet of paper and marking the centre and several shooter MOA points (every one inch) below the centre. Place the target at exactly 100 yards, aligning the primary crosshair with the centre of the target. Note: The same process can be used for milliradian scopes, but with metric units. Next, adjust the scope's magnification until the secondary marks align with the marks on the paper. This is the correct magnification setting for your scope.

#### SCOPE AS A TAPE MEASURE

As mentioned earlier, reticles with primary and secondary marks can become an optical tape measure in the field. If you know the size of the target, it's easy to make a small chart at home to measure distance in the field. By bracketing the animal with the scope's marks, you can calculate an approximate distance. Using a scope in this manner is a quick double-check of your laser rangefinder, or a back-up system should the rangefinder die in the field.

Wales points to the Vortex PST Gen II riflescope with an EBR-4 reticle as an excellent choice of scope/reticle combination for the hunter. "It's not overly complicated yet has enough detail for simple shot corrections. The next step up is the EBR-7 reticle, which gives the practiced hunter more reference marks for wind and eleva-



Scopes with mil (above) or MOA graduated elevation turrets require calculations to determine hold-over. However, they are more versatile when conditions affecting trajectory change.

tion holds below the primary (centre of the reticle)."

Remember, this process differs between SFP and FFP scopes. In an SFP scope, the measuring tape is true at one magnification, versus FFP scopes where it can be used at any magnification.

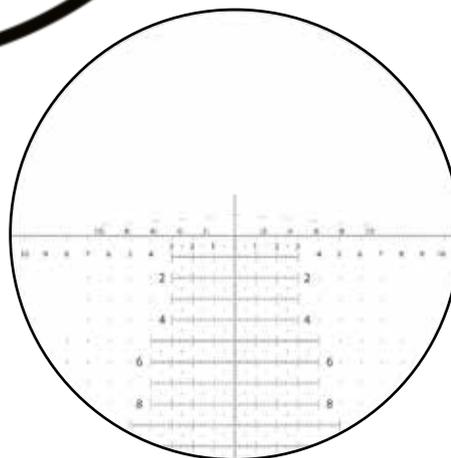
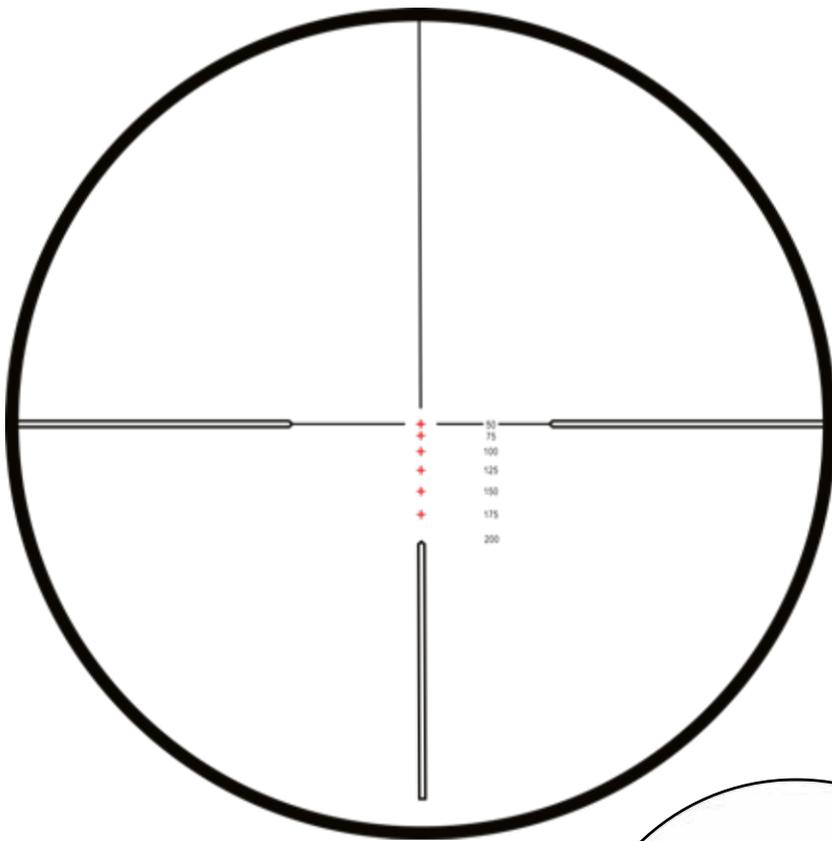
#### ADJUSTABLE TURRETS (EXPOSED DIALS)

A dead-on hold using the primary crosshair, beyond the zeroing distance, requires dialling the elevation turret. A ballistic calculator is essential for this task. After entering the known ballistic variables, the calculator provides the adjustment amount (mils or MOA). Simply range the distance, dial and shoot. For example,

you range your target at 540 yards. Referencing your drop chart, you'll need to dial up 8.3 MOA for 550 yards. Dial the number, hold for the wind and shoot. I try to remember and turn my turrets back to zero after shooting. If I forget, the next shot will either go high or take precious seconds to reset.

Many companies now offer custom turrets for your favourite load and hunting conditions. So, after you've developed and validated it, contact your manufacturer's custom shop and they can engrave a turret with distance marks rather than MOA or mils. With these custom turrets, you can range, dial by distance and shoot.

Leupold's Wind-Plex reticle, used in some models of their hunting scopes, allows the hunter to hold for wind using the reticle while dialing the CDS (Custom Dial System) for dead-on holds at various distances. This system is intuitive and fast for hunting. And >



given the number of CDS scopes in the Leupold lineup, it's a popular choice for all types of shooters.

#### HYBRID APPROACH

If you can't decide whether to dial or hold for bullet drop, you're not alone. For extra precision, Wales suggests a hybrid approach. On scopes with both MOA or mil marks and a field-adjustable turret, the shooter can make coarse holdover adjustments using the reticle and finer adjustments by adding turret adjustment. For example, after ranging a deer, you determine from the drop chart that you need 5.3 MOA of elevation, dial .25 (the closest click to the calculation), hold your reticle on the 5 MOA mark and shoot.

This method is faster than dialling for a dead-on hold, minimizes wear and tear on the scope's turrets and allows for more precise holds, which may be needed for longer-range shots with less margin for error.

#### FINAL SHOT

No matter which reticle you choose, the important part is educating yourself on how to use it. "If you don't

understand the manual, reach out to your retailer or even the manufacturer," said Wales. "They can coach you through the process of setting up a scope for your rifle."

If you're not into long-range technology and calculating ballistics, stick with something simple like a plex-style reticle. But, if you're someone who enjoys long-range shooting, consider a hunting riflescope and reticle that reduces the guesswork.

From the old-school marksman with a duplex reticle, to the ballistic guru with modern optics and everyone in between, the choice is yours. Know your system and get out and practice -- it will pay dividends this fall. 🍂

**TOP LEFT:** The reticle on this Hawke 4-16x50 scope is calibrated for 22 LR ammunition, providing aiming points from 50 to 200 yards. The aiming points change with magnification (as in all second focal plane scopes), so this one is calibrated at 9x.

**ABOVE:** This Vortex EBR-4 reticle is available marked in minutes-of-angle or milliradians, allowing elevation and windage compensation. It's not overly complicated for the hunter and is illuminated for use in low light.

**LEFT:** "Christmas tree" reticles like this Horus H59 are popular with professional and competition shooters, but they're overly complicated for hunting. The fine secondary aiming points are difficult to see against a dark background or animal and can be washed-out with mirage in bright conditions.

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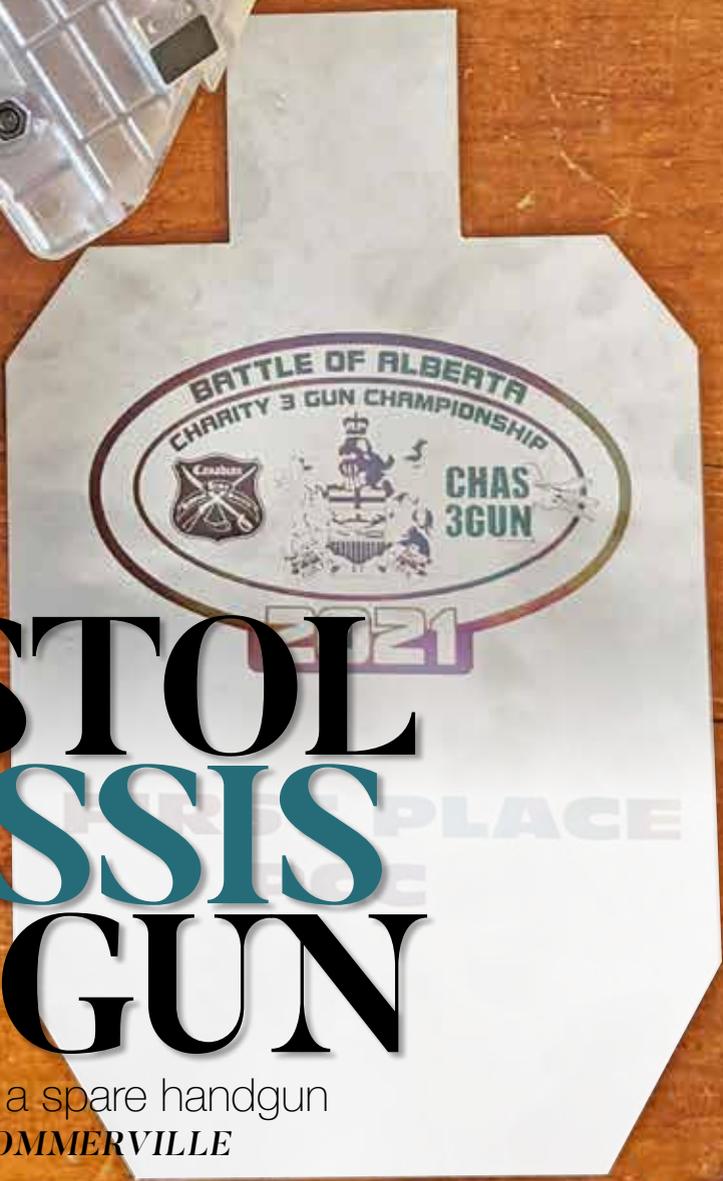
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# A PISTOL CHASSIS IN 3-GUN

Finding a use for a spare handgun

*BY TYSON SOMMERVILLE*

**H**ave you ever lost a shooting competition so bad you bought new gear? I have. Since the May 1 ban, I've been using my Mosin-Nagant for 3-Gun. At first it was fun, but thanks to a five-round magazine capacity, stripper clips and a tendency to jam, the novelty wore off. After a particularly bad jam that cost me some serious time, I decided it was time for a change. The best plan I could come up with, that wouldn't bankrupt me, was to buy a chassis kit for my Smith & Wesson M&P and dig out my 1911 to use as a pistol for the next match.

I did some looking around online and found a clear plastic chassis from CAA Gear, I went for the second-generation MCK (Micro Conversion Kit) purchased from a Canadian website. By the time the dust settled on shipping and taxes, it cost me \$320. I chose the second generation over the first because the spare magazine holder in the forend has been up-

graded to a push button release from a friction hold.

My initial thoughts, once the unit arrived in the mail, were that it looked super cool, very futuristic, and the ergonomics were great. Pistol installation was a snap and took less than a minute with no special tools. It felt a little flimsy and this model had plastic picatinny rails, which I feel are a real hinderance when trying to gain some rigidity.

I took it to the range and tested it out and was thoroughly disappointed. It cycled reliably and felt good to shoot, but I could barely keep it on paper at 25 yards. The company advertises an increase in accuracy, but I found I could shoot my pistol off-hand more accurately than the pistol in the chassis and with a rest. I took it all home and called the store I bought it from. After a lengthy runaround, I was told I could return it, but I would have to pay shipping and a 20 per cent restocking

fee. (As a side note, angrily tapping a red circle on a smartphone screen just doesn't feel the same as slamming an old phone down.) I then emailed CAA (the manufacturer) and a representative got back to me asking for more information and pictures. I sent them and never heard from them again. As it stands, they still haven't gotten back to me. After a few days of waiting, I found the Canadian importer. They were more helpful and sent me a replacement within a few days.

The new one was noticeably sturdier and had better fitment. I took it back to the range and, sure enough, it shot much better. It was still only about as accurate as I could shoot my pistol, a little over four inches at 25 metres, but I've heard from others who are getting a bit better accuracy than that. I'm sure, like most guns, some load development would be of benefit, but I only used my plentiful handloads. Accuracy is, obviously, dependent on



Installing a pistol into the CAA Micro Conversion Kit is done without tools and takes less than a minute.

the pistol being used in the chassis, so it's hard from a review perspective to make any fair claims about accuracy.

After all that excitement, I finally got a chance to run it in a match. It was an absolute delight. The dollars per fun ratio on this kit is high. Where it struggles is, of course, with longer-range shooting. I found anything under 50 yards was a good time; 50 to 100 yards was a challenge; beyond 100 yards, just engage the target and either get lucky or take the penalty and move on – mostly the latter. Its light weight and ergonomics made it easy to point and shoot in a hurry and the spare magazine holder on the front of the chassis shaved some time off my mag changes and doubled as a monopod for my attempts at longer shots. By the end of the day, I had placed third out of five people in my division, and I truly feel it was not my choice of “rifle” that kept me from placing even better. Its next competition outing was a big three-day match called The Battle of Alberta. By then, I started to feel more comfortable running this thing and it showed, as I won first place in the Pistol Calibre Carbine (PCC) division.

I think, given the effective ranges of this kit, using it in a competition like IPSC or steel challenge would be a lot of fun, and for \$320 it's an easy way to breathe new life into an old pistol – kits are currently available for some S&W, Glock, Sig, CZ and Springfield Armory models. Another note that belongs in the positive column for people like me is the looks-cool factor, as it draws a lot of attention and questions. My only criticisms of all this are the trouble I had with the first one I received, the clear plastic model gets dirty fast on the inside and is hard to clean, and I found the chassis rubbed my thumb knuckle raw on my trigger hand (easily fixed with some black electrical tape). The folding stock made storage easier but wasn't useful for much else, and it does have an attachment for a single-point sling, but I just couldn't find an excuse to use it. At the end of the day, I think this is a good product for the right person. I don't think it will replace a true PCC rifle, but it could be just what you need for an inexpensive and fun way to spruce up a stale pistol or try a new division in competition. I intend to run mine for at least the remainder of this 3-Gun season. 🍀



**ABOVE:** Pistol conversion chassis systems are an inexpensive way to get into a pistol calibre carbine.

**RIGHT:** The spare magazine housed in the foregrip can shave serious time off a reload.







# SLUG GUNS

Checking out single-projectile shotguns

BY JEFF HELSDON

**A**s deer populations across North American started to rebound in the latter half of the 20th century, wildlife managers were presented with the challenge of balancing hunting of the growing herd with the discharge of firearms near areas with higher human populations. The solution, in many cases, was shotgun and muzzleloader-only seasons. The rationale being that the projectiles from these guns don't travel as far as a rifle bullet, but both are effective at bringing down deer. Several American states and Canadian provinces went this direction.

Today's guns and ammunition have advanced significantly from those first deer seasons. While hunters still have the option of using traditional slugs, now sabot slugs in rifled barrels may allow 200-yard shots with the right ammunition-gun combination, and slug guns are used for more than deer.

#### SLUG DEVELOPMENT

Wilhelm Brenneke invented the first modern slug in Germany in 1898. This company still exists today and uses many of the principles of its founder in building its ammunition. A Brenneke slug has ribs cast on the outside and a plastic or fiber wad attached to the base of the pointed slug. The wad assists with gas seal and stabilization during bullet flight. The ribs allow these slugs to be

used in all chokes from full to cylinder, as well as initiating some rotation in flight.

Most common today is the Foster-type slug, which is commonly referred to as a rifled slug. The latter name refers to the ribs on this slug. It was invented by Karl Foster in 1931 for deer hunting with shotguns during the Depression. These slugs have a large hollow in the base to provide stabilization by making the slug weight-forward, similar to a pellet for a pellet gun. Although these slugs have been shot through many choke types, it's generally recommended for use only in an improved cylinder or cylinder choke. Winchester introduced the first commercial Foster slugs to the market in 1935.

While the term rifled slug gives the impression the ribs cause the slug to spin to improve accuracy, this is not the case. There is some spinning, but recent research has shown it's not enough to cause the same spin as with a rifle bullet. The ribs do allow swedging or squeezing of the slug so it will fit through different diameter chokes.

Everything changed when the sabot slug concept was developed in 1968. These slugs were smaller than the bore of the shotgun and were surrounded by a plastic sleeve, or sabot. When fired through a rifled barrel, the rifling provides a highly effective spin for bullet >



The Savage 220 sets the standard for accuracy in slug guns.

BELOW: Today's slug gun hunter has numerous ammunition options. These are just some of them.



stabilization. The sabot drops off shortly after leaving the barrel and the bullet continues to spin. Sabot slugs started taking off in the 1980s. The design of today's sabot slugs is much like rifle bullets, with some featuring bonding, polymer tips, hollow points and even alternate metals.

From a hunter's perspective, rifled slugs depend on their large diameter and weight for penetration and terminal effectiveness. Sabot slugs, however, work more like a modern rifle bullet by expanding on impact.

#### SLUG EFFECTIVENESS

The weight of sabot slugs is usually expressed in grains, with a typical 12-gauge weighing in at 300 grains and a 20 gauge at 260 grains. The weights of rifled, Foster-type slugs are usually expressed in ounces with one ounce (437.5 grains) being common in the 12 gauge. Compare those weights to an average .30 calibre, 150-grain, rifle bullet.

Looking further at the numbers, 1,300 foot-pounds of on-target energy is the number famed outdoor writer Jack O'Connor referenced as necessary to kill a deer ethically. Many since then have said 1,000 is enough. If you con-

sider those numbers valid, at 100 yards, with 2¾-inch shells, Winchester's Deer Season ammunition gives the 12 gauge 2,010 foot-pounds of energy, and the 20 gauge 1,500 foot-pounds of energy. Remington's Accu-Tip slugs claim 1,677 foot-pounds of energy for the 12 gauge and 1,129 foot-pounds of energy for the 20 gauge. All are above the 1,000 foot-pounds of energy threshold.

Slugs have also become common for self-defense in bear country and for use by bear guides. Alberta bear guide Mitchell Kunys finds a one-ounce rifled slug hits hard, breaks bones and goes completely through the animal. "A large wound channel and broken bones helps stop the animal if in a personal defence type scenario and to dispatch the animal quickly and safely," he said.

He also likes the quick handling of a shotgun, compared to a rifle, and the shorter length in tight cover. "In my opinion, slugs for baiting or tracking are better, simply for the hard-hitting stopping power," he said. "Yes, a rifle will do the same, but a shotgun is a better firearm for close range point-and-shoot situations and most people are faster with it for a second or backup shot if needed. Most guides

who carry shotguns usually have some form of short-barrel gun with a pistol grip stock for ease of carry, as well as short movements."

#### SLUG GUN OPTIONS

The first deer slug guns were not the specialized guns of today. Both my grandfather and uncle used full choke Model 12 pump guns in 16 gauge for deer. However, most did prefer a cylinder bore gun. The first specialized deer slug shotguns were short-barreled cylinder bore guns with sights.

It's difficult to track which of these were first or when it hit the market. I found reports of the Ithaca Model 37 Deerslayer originating in 1959, although the company couldn't confirm this due to changes in ownership. Was it first?

The Buffalo Bill Centre of the West in Cody, Wyo., houses the Winchester firearm collection, including the company's records. Danny Michael said most Winchester pump guns were available with extra barrels, including cylinder bore. The company wouldn't know if those barrels were used for deer hunting. "I have not seen any pre-war advertising that those were slug barrels, so I am guessing that any dedicated slug bar-

A rifled slug can be quite simple with just a one-piece wad and the projectile.



The wad stack and sabot make a sabot slug more complex than a rifled slug.

Sabot slugs differ widely in design. From left to right: Federal Power-Shok, Federal Trophy Copper, Hornady SST, Remington Accu-Tip and Winchester Deer Season.



rels only appeared sometime after the Second World War," he said.

Remington's museum in Ilion, NY, is still not up and running following the breakup of the company, and an Internet search didn't find the answer either.

We do know the first rifled slug barrels and guns were introduced in the late 1980s and early '90s.

There are a wide variety of pump, semi-auto and bolt-action slug guns available today. The pump gun is likely the most popular slug gun, in both straight and rifled barrels. Mossberg, Remington, Winchester and Browning are common. Don't discount the latest update from Ithaca though, the Deerslayer II and III. The latter has a fluted barrel and is built for long-range accuracy. For semi-automatic aficionados, Remington, Browning, Winchester, Mossberg and Benelli are among the companies with slug guns currently on the market.

The Savage Model 212 and its 20-gauge counterpart, the 220, have become the standard for those wanting to shoot sabot slugs in a bolt-action. The gun is economical, proven and accurate. Other bolt-action manufacturers have offered rifled slug models temporarily, including Mossberg, Marlin and Browning. There are also several high-end custom manufacturers making slug guns. And for single-shot fans, H&R and Thompson/Center both have slug guns available.

#### ACCURACY

To get a feel for what modern slug guns and ammunition are capable of, I tested three different guns: a Winchester 1300 pump-action, 12-gauge slug gun with a 1.5-5 Bushnell Legend scope; a Mossberg 500 pump-action, 20-gauge slug gun with a Scorpion 1.5-5 optic; and a Savage 220 bolt-action with a Bushnell Elite 3-9 scope. My original plan to test fire all at 100 yards was foiled when I discovered the crosshair in the Scorpion was too coarse and covered the targets I was using at that distance. This wouldn't be a problem for hunting, but it didn't work at the range, so I fired all three at 50 yards and stretched the Savage out to 100.

The Savage was, not surprisingly, the most accurate at 50 yards, with three-shot groups ranging from one to 1.25 inches. The most accurate ammunition was Federal Trophy Copper 3-inch and Remington Accu-Tip 2¾-inch. Savage recommends shooting Accu-Tip 3-inch, but I couldn't get my hands on any of those. At 100 yards, my groups ranged from 1.5 to three inches. The most accurate, again, was the Federal Trophy Copper, suggesting the gun likes the higher velocity slugs from the 3-inch shells. I also felt that with more experimentation, I could tighten those 100-yard groups.

The Mossberg, at 50 yards, shot groups ranging from 1½ to 2¾ inches. It liked Winchester's new Deer Season

slugs the best. Also of note were Federal's Power-Shok sabot slug and Hornady SSTs, which had two shots touching, with the third shot just over an inch away.

The tightest group from the Winchester 1300 measured ¾ inch using Remington Accu-Tip 2¾-inch ammunition. It produced a 1½-inch groups with Hornady SST and the same type of pattern with the Power-Shok slugs as the Mossberg did, with two touching and one just over an inch away. Out of curiosity, I also put my regular bird barrel on the Winchester 1300 and fired three Score rifled slugs at 50 yards. These produced a 2½-inch group.

Firing the Winchester and Mossberg next to the Savage emphasized the superiority of the Accu-Trigger on the Savage 220. Checking the triggers when I got home, the Savage broke at 2.5 pounds and the two pump-actions at between seven and eight pounds. Plus, the shotgun triggers had a lot of creep. This exercise raised the possibility of a trigger job in the future for the Winchester.

When the smoke cleared, it was obvious to me that if you hunt in a shotgun-only hunting zone and aren't using a dedicated slug gun, it's a missed opportunity. And don't discount slugs for bear hunting or self-defense when hiking or on a backcountry trip. 🦋



# AN INTERNATIONAL RIMFIRE

On the hunt with a Grey Birch/TacSol/Eley 10/22

BY AL VOTH

**T**here's little doubt the Ruger 10/22 is the most popular rimfire rifle in North America. It's been around for more than 50 years and more than five million have been manufactured. Of course, the patent on the design expired long ago and so there are now numerous manufacturers producing their version of this rifle. Typically, these companies produce custom or upgraded versions of the basic rifle, leaving it to Ruger to offer the simple, bare bones, original design. There are even a couple of Canadian firms competing for a share of the market by building 10/22 components.

A key feature of the 10/22 which has contributed to its popularity is the modular nature of the rifle. With only basic tools and a few YouTube videos, anyone can assemble a custom rifle from parts, or add custom touches to an otherwise ordinary gun. I've certainly done my share of this and recently had the opportunity to assemble another 10/22 into what turned out to be an international rifle, in the sense that I used parts from both the US and Canada, then fed it ammunition from England.

#### START WITH THE CHASSIS

This project started with the acquisition of a 10/22 chassis manufactured by Grey Birch Solutions of Ontario. Grey Birch labels this chassis as their Foundation model. When I

asked Steve Huk, a co-founder of the company, what Grey Birch is all about, he said, "We are laser focused on bringing to market creative and innovative products to enhance the user experience. Experiences matter, and helping our customers have as much fun as possible is the mission. We're always trying to think outside the box about how to do that. Whether it be the functionality and modularity of the ultralight Foundation chassis or breaking away from a 55-plus-year design with the Fusion System, and now integrating the barrel and receiver. We are taking semi-auto rimfire to the next level."

The Fusion chassis ships disassembled in three pieces, which are easily reassembled with just an Allen key. Once connected, the three pieces combine to make a solid aluminum chassis which measures 25 to 27 inches, depending on where the buttstock's length of pull is set. It isn't supplied with a grip, but just about any AR-15 pattern pistol grip will work. I found a Magpul one in my parts box and snapped that into place. And if you think all chassis systems are heavy, that's not the case here. With the grip and a sling stud installed on the forend, via an M-Lok adaptor, this one checks in at a light 800 grams (28 ounces).

If you're one of those who thinks life is too short to shoot ugly guns, this chassis won't let you down. Overall >

quality, including machining and finishing, is as good as I've ever seen. And the grey colour, along with black, silver and blue accents, adds to the chassis' visual appeal. The adjustments of the chassis, for length of pull and comb height, are easily done and solid in retention. It does require an Allen key, so it's not toolless. I had to place the comb in its lowest position for use with the Leupold scope you see mounted in the photos. It worked perfectly in that position, but I wouldn't have been able to mount a sight any lower than this.

An interesting feature Grey Birch has added to this chassis is the ability to give the receiver some support at the rear. This has been done to solve a long-standing complaint about the original design having a single screw (located in front of the magazine) holding the barreled action to the stock. It's reasoned that this single support point is inadequate and a second support at the rear of the action would help accuracy. The Grey Birch solution is a hole drilled at an angle through the top of the chassis, just behind the receiver. A pair of small Allen screws engage threads at the bottom of the hole, with the lower screw pushing down against the rear tang of the trigger guard, while the upper screw locks the first one in place. No, it's probably not as good as that rear action screw we find on centrefire rifles, but at least it's something. It's unfortunate the original



**ABOVE:** The Grey Birch/TacSol/Eley/Leupold combination proved effective in controlling the gophers infesting a farmer's fields.

design doesn't allow for a better fix.

There's more information on the Grey Birch website, located at [greybirchsolutions.com](http://greybirchsolutions.com), where you'll see the price on the Foundation chassis is \$399.99. And as I write this, they are offering free shipping to any Canadian destination. Huk says Grey Birch wants to continue pushing the envelope of innovation, using new materials, processes, methods and designs, so it'll be worth keeping an eye on what they're doing.

#### ADD THE BARRELED ACTION

The quality of the chassis told me I had to do something special for an action and a barrel, as dropping the stock Ruger barrel and action I have squirreled away in the safe just wasn't going to cut it. After exploring

several options and the cost involved in buying premium parts separately, I settled on a barreled action from Tactical Solutions (often abbreviated as TacSol), a US company whose products are widely available in Canada.

Tactical Solutions is headquartered in Boise, Idaho, where they specialize in producing high-quality rimfire firearms, offering many of their products as parts or accessories for guns made by firms like Ruger, Browning, S&W and Glock. They offer a complete version of the Ruger 10/22 rifle called the X-Ring, as well as just about all the parts you'll need for a build. And in



The Grey Birch chassis was completed with a Tactical Solutions barreled action, Leupold scope, Magpul grip and Ruger magazines.

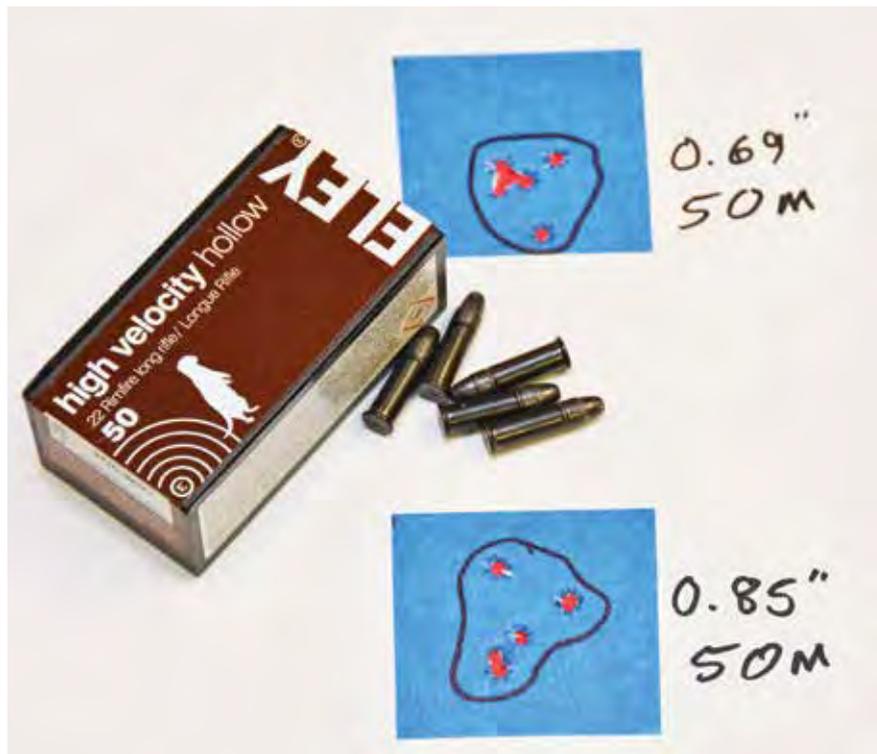
keeping with the Grey Birch philosophy, they emphasize light weight. The receiver is, of course, an aluminum alloy, just like the original, but the barrel is a slim steel liner affixed inside an aluminum sleeve, which has the typical 0.920-inch diameter of a 10/22 target barrel. That aluminum sleeve and the 16.5-inch barrel length turn the barreled action into a real featherweight.

The action also has some unique features, including a charging handle that can be affixed to either the right side or the left side of the bolt. Ejection, however, is always to the right. I put the charging handle on the left, and it now runs the same as my 9mm Ruger PCC. Thoughtfully, a hole is drilled in the rear of the action to facilitate cleaning from the rear. It's a modification I've done to every Ruger 10/22 I've ever owned, so it was nice not to have to drill holes in a new receiver for a change.

TacSol goes one step further and even has a plug inserted into the hole, to keep out debris.

When I first cycled the action, I was immediately struck by how smoothly the bolt moved back and forth. Initially, I thought this was simply a result of tighter tolerances in manufacture, and while I have no doubt that contributes, I now believe something else gets most of the credit. Disassembly revealed two guide rods and two springs to control the bolt's cycling. This is not your Daddy's 10/22, and it doesn't disassemble in the same fashion either. Reading the instruction manual is not optional if you want to strip this gun for cleaning. But once you understand the principles involved, takedown is only a little more complicated than the standard version.

A trigger assembly is included with the barreled action, specifically the Ruger BX-Trigger. While this may not be the best 10/22 trigger on the market, it's a huge improvement over a standard trigger and reasonably priced at \$140 CAD if bought separately. It broke consistently between two-and-a-half and three pounds and contributed significantly to the good shooting I did with this rifle.



**ABOVE:** With ELEY hollow point ammunition, five-shot groups at 50 metres averaged close to three-quarters-of-an-inch and functioned the gun with stellar reliability.



**LEFT:** The dual recoil springs and guide rods found in the TacSol receiver are a major upgrade from a typical Ruger 10/22.

#### FEED IT GOOD AMMUNITION

As we all know, for maximum accuracy from a rimfire, it's important to test different brands of ammunition to find what a rifle prefers. Since this rifle is destined to hunt pests and varmints, I limited my testing to high-velocity hollow point offerings. Products from Winchester and CCI were the first brands I tested and although they did well, they couldn't match the accuracy of ELEY's hollow point hunting line. With that ammunition, five-shot groups at 50 metres averaged close to three-quarters-of-an-inch and functioned in the gun with stellar reliability. I've used this ammunition on various critters before and, at an average velocity of 1,150 feet per second, it's a little slower than some brands, but it's terminal performance leaves nothing to be desired.

As a result, Eley ammunition got the

nod to travel with me to Saskatchewan where I and a couple friends worked for several days to help a farmer with too many gophers on his land. The Grey Birch/TacSol build wasn't the only rifle I took, but it was the only 22 LR, so it got a real workout. When the smoke cleared at the end of the third and final day, I'd sent 629 burrowing rodents to that big pasture in the sky. My friends did about the same.

The light weight and the accuracy of the rifle made it a lot of fun to shoot. My effort to combine a Canadian chassis, an American barreled action and British ammunition turned into a resounding success. If you're in the market for a good rimfire, a build on the Grey Birch chassis would be a good place to start. 🍀

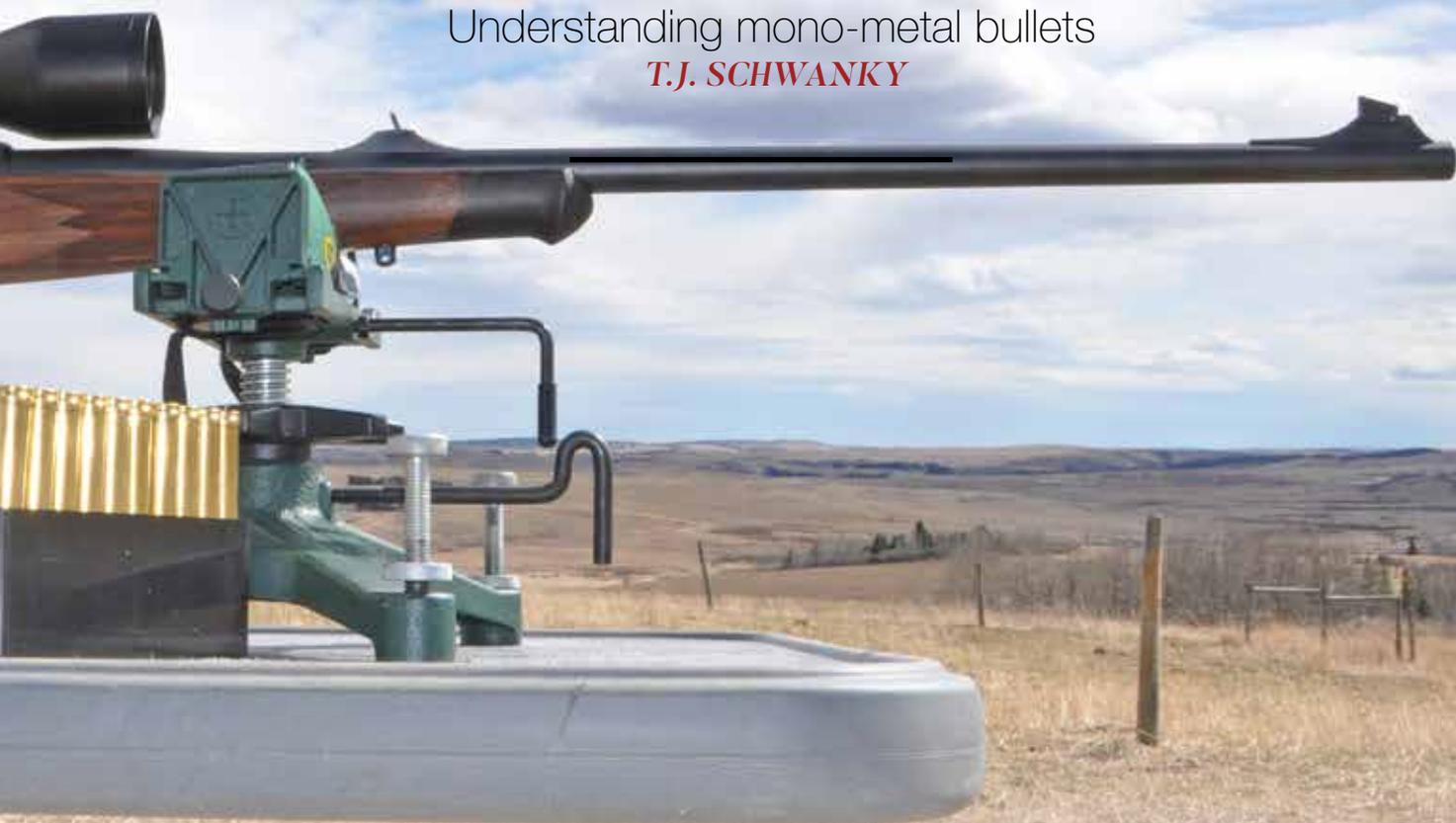


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# UNLEADED BULLETS

Understanding mono-metal bullets

*T.J. SCHWANKY*



Considering mono-metal bullets are an integral part of our hunting culture, and non-lead bullets are required by law in some states, it can be hard for many to believe that it was a scant 32 years ago that Randy Barnes introduced the first expanding, mono-metal bullet – the Barnes X-Bullet. Constructed totally from copper, with a deep cavity in the nose to facilitate expansion, the Barnes X was touted for its high weight retention and incredible penetration. As copper is lighter than lead, X-Bullets were also slightly longer than jacketed

bullets of the same weight, allowing the use of lighter-weight bullets, while still offering up a comparable ballistic coefficient. The near 100 per cent weight retention was also touted to achieve deep penetration, even with lighter-weight bullets.

#### THE ORIGINAL

Looking back in time, the original X-Bullet was likely released too early in its development, and it was not without shortcomings. The biggest issue was that it was extremely finicky when it came to shooting tight groups.

Seating the bullet further off the lands than more traditional cup-and-core bullets seemed to help with some rifles, but others just didn't like it and wouldn't shoot good groups regardless of the amount of tinkering. It was a case of either your rifle liked them or not, and many did not. Even rifles that shot the X-Bullet well at 100 yards, often showed dismal accuracy at 300 yards. A one MOA group at 100 yards often turned into three or four MOA at 300 yards.

Barrel fouling was another valid concern with the original X-Bullet.

Unlike jackets on lead bullets, which are made of gilding metal, a five per cent zinc and 95 per cent copper blend, the X-Bullets were 100 per cent copper, and with no cannelures. The bulk of consumer-grade copper solvents at the time weren't of the highest quality and therefore extensive scrubbing was required to clean barrels. As few hunters routinely clean their barrels anyway, rifles quickly became fouled, with accuracy and pressure issues resulting.

The final knock against the X-Bullet was many people believed they were experiencing inadequate expansion, with much of that attributable to the fact people weren't used to consistent pass throughs with their current cup-and-core-style bullets. These bullets were super tough, in hindsight perhaps a bit too tough, and required impact velocities over 2,000 feet per second to initiate expansion. And even with higher-velocity hits, there were some legitimate expansion issues with the X-Bullet, especially on quartering shots. Between people not understanding the physics of mono-metal bullet expansion and some legitimate failures to expand, mono-metals gained a reputation for poor expansion that still plagues them today.

#### THE ORIGINAL IMPROVED

The second generation of the X-Bullet, introduced in 2003, was the Triple Shock X-Bullet or, as it's more commonly known, the TSX. This improved version sported three or four circumferential grooves, depending on the calibre and bullet weight, which greatly reduced copper fouling and pressure, and it made the bullet palatable to more rifles in the accuracy department. As copper is not as malleable as lead, there was a pressure spike with the original X-Bullet when the bullet contacted the lands of the rifling. By incorporating grooves or cannelures into the shank of the TSX, friction and the resulting pressure spike were reduced, resulting in a less finicky bullet.

Barnes followed in 2011 with the Tipped Triple Shock X-Bullet, or the TTSX. While advertised as a TSX with a polymer tip, there's little question this bullet expands more readily than the TSX and is much more prone to losing petals as it moves through the animal. The polymer tip is designed to push back into the cavity of the bullet upon impact and facilitate faster expansion.



**ABOVE:** As these sectioned bullets show, mono-metal bullets (left) have a unique construction.

**RIGHT:** Velocity is a friend to the mono-metal. Dip below 2,000 feet per second (right) and expect poor expansion.

**BELOW:** The four-petal design TSX (left) and the six-petal design GMX (right).

While losing petals is not considered bullet failure, and on deer-sized game it likely makes no difference in how lethal the bullet is, on larger game, especially dangerous game, having a bullet that retains close to 100 per cent of its original weight is desirable to achieve maximum penetration.

I must admit to being slow to jump on the mono-metal bandwagon, and it wasn't until 2009 that I really put them through their paces on a plains game hunt in Namibia. We took 11 animals during that trip, at ranges from about 20 feet to 406 yards, and I came home impressed. Penetration was outstanding on all the animals, as was weight retention and expansion on the few we recovered. I must admit to almost not wanting to like them and used them on the trip to prove that point,

but I came home a convert. While there are arguments to be made for human safety from ingesting lead from bullet particles, I think even with that aside, mono-metals definitely have their place.

#### MORE OPTIONS

Other manufacturers have been quick to follow with their own versions of mono-metal bullets. Nosler brought out their E-Tip in 2008, which also features a polymer tip designed to facilitate more rapid expansion. The E-Tip is made from copper alloy and sports no grooves, but the alloy is slightly slicker than pure copper, helping alleviate some of the pressure problems associated with the original X-Bullet. Winchester also loaded the E-Tip in their Supreme line, but they



coated the bullet.

In 2009, Hornady brought their GMX to market. It is constructed of gilding metal, a 95/5 blend of copper and zinc. GMX stands for Gilding Metal eXpanding. The GMX also sports two cannelures and a polymer tip. Pressure problems are less of an issue with the GMX, and the combination of gilding metal and grooves has addressed the issue of copper fouling as well. Lead-core bullets have a jacket made of gilding metal, so copper fouling is no worse than with regular jacketed bullets. This combination of features allowed Hornady to push the GMX at the higher velocities associated with their Superformance ammunition line without pressure and accuracy issues, so it fast became a favourite with those looking to shoot extended ranges with mono-metals.

Rather than a traditional four-petal design, Hornady opted for a six-petal tip and increased the size of the cavity to facilitate easier expansion. I've shot or been part of hunts where more than 100 animals have been taken with the GMX, and on the small percentage that



**ABOVE, LEFT AND RIGHT: Even the lighter-weight 250-grain GMX shot from a 375 H&H offered sufficient penetration to reach the heart on a full frontal shot on a cape buffalo.**



didn't pass through but were recovered, I've been impressed with the amount of increased frontal area the six-petal design offered over the four-petal design. With the four-petal design, gaps exist between the expanded petals. With the six-petal design, you get an unbroken frontal area, more like that of a bonded bullet. Increased frontal area equals increased trauma as the bullet passes through tissue. The GMX is a boat-tail bullet similar to the SST and the two can typically be interchanged without changing zero. This allows shooters to work up a load with the inexpensive SST and save the higher-priced GMX for hunting.

Obviously, zero needs to be confirmed any time you are switching bullets, but these two shoot remarkably similar.

Following in the footsteps of those early pioneers in the mono-metal bullet development, more companies are adding mono-metals to their line up yearly, and most ammunition manufacturers now offer at least one version, with companies like Barnes offering four different versions for centrefire rifles. This is testament to their popularity. Certainly, legal requirements in some states are helping drive this popularity, but so too is a desire for healthier meat. Studies out of Minnesota left little doubt that more

traditional cup-and-core bullets do leave a large amount of lead fragments in game, and that those fragments can migrate a considerable distance from the wound channel. While no direct link to human health has been made from ingesting lead from hunter-killed game, many hunters are preferring to err on the side of caution and go with the non-lead alternatives.

Hunters looking for extremely tough bullets, especially at close ranges, are big fans of the mono-metals as well. It's the only bullet we've used on our past 10 safaris in Africa, for both plains game and dangerous game, and I routinely use it here in North America for moose and bears where ranges are typically close. But, like all bullets, mono-metals have their ideal performance envelope, and if you stray outside of it, you can expect less-than-ideal results. Despite many different designs in modern mono-metals, there are a few things they all share, including the following.

#### **SPEED IS YOUR FRIEND**

Spend a day on the Internet and you'll invariably see someone post about mono-metals being too tough and at close range they just pencil right through an animal without ever expanding. Physics says the opposite. The fact is you need fairly high impact velocities for mono-metals to reliably expand. The higher the impact velocity, the more rapid and violent the expansion. While I've seen some mono-metal manufacturers claim reliable expansion down to an impact velocity of 1,800 feet per second, I personally won't use them in a situation where impact velocity dips below 2,000 feet per second. For a 30-06 shooting a 165-grain GMX, for example, that's around 500 yards.

Stories of failures with the original X-Bullet persist, but many hunters aren't used to shooting bullets with such high weight retention and, when they rapidly pass through an animal with only a small exit hole, they assume there was no expansion. Exit hole size in no indication of bullet expansion, and even if we measure that hole it would invariably be an inch or so in diameter. When you consider that a .30 calibre bullet, which expands twice it's original size, only measures about two-thirds-of-an-inch, it quickly becomes obvious that

exit hole size is basically irrelevant. Cup-and-core bullets that fragment extensively often leave large exit holes, but only because that fragmentation creates a shrapnel effect which punctures and tears the hide in numerous places. The only time you will experience expansion problems with a mono-metal is if you let impact velocities dip below 2,000 feet per second. They don't pencil through with high velocity hits, quite the opposite in fact. If you recover a mono-metal, it will likely be from a close-range, high-velocity hit due to this rapid expansion slowing the bullet more quickly than at more extended ranges with lower-impact velocities.

People that have never used mono-metals are often convinced they didn't expand because animals regularly run off a short distance before expiring. Again, with near 100 per cent weight retention, there is no fragmentation, and the wound channel can be relatively small compared to a bullet that fragments. They are no less deadly when placed properly, but death is often not as dramatic with soft tissue hits, as blood loss occurs slightly slower. Even if death takes a mere second longer, that animal can run off and cover a lot of ground in that second. When these bullets strike large bone, however, the effects are often quite dramatic.

#### **ACCURACY VARIES**

Most rifles will see minute-of-angle accuracy at 100 yards, but as with

the original X-Bullet, that doesn't necessarily mean MOA accuracy at 300 yards. Vanessa has a Tikka chambered in 30-06 that will print .60 MOA groups all day long at 500 yards with a 165-grain GMX and I've got a 7RM that easily shoots sub-MOA at 100 yards with mono-metals, but I struggle to hit a 10-inch gong at 500 yards. You need to test them at all ranges and confirm what type of accuracy you have. A 100-yard group is not always an indication of longer-range performance. If you are a reloader, playing with seating depth can greatly increase accuracy. I typically begin about 100 thousandths of an inch off the lands.

#### **WEIGHT MATTERS**

Another aspect many hunters struggle with is that because these bullets retain 100 per cent weight and are slightly longer than a typical cup-and-core of the same weight, because copper is lighter, you can downsize bullet weight slightly to gain speed, while still maintaining all the advantages of a heavier cup-and-core. For example, with the 30-06 you can expect great results with a 165-grain mono-metal, my favourite for the 338 Win. Mag. is a 185-grain, and in the 375 H&H I run 250-grain mono-metals. In the bigger magnums, the lighter bullets also offer a considerable reduction in recoil while still providing great penetration.

Mono-metal bullets are still relatively misunderstood by many hunters, and these days most issues can be traced back to operator error. They certainly aren't the be-all and end-all in bullet selection, but for those not shooting long range who want a super tough bullet that won't leave a trail of lead in your meat, they are definitely worth considering. 🦋

**Due to high weight retention, you can get away with lighter-weight mono-metals, reducing recoil in the big magnums.**



# YETI'S LOADOUT GOBOX 30

Keeping your gear safe and secure

BY JEFF SMITH

Yeti is the maker of some high-end, solid performing coolers and drink holders. A few years ago, the company brought out a non-insulated travel box designed to protect gear. At the time, I was in the market for a quality storage unit that was portable and would protect my hunting and range gear, plus secure my ammunition, so I took the plunge and bought one. I will admit the box is not inexpensive, however, neither is the gear I want the box to protect.

Yeti designed the LoadOut GoBox 30 to withstand serious use on a variety of outdoor modes of transportation, all while protecting the contents from impacts. It is made of a high-end polymer material that resists damage extremely well. Strong latches keep the lid from popping open and require a solid smack with the palm of the hand to close. A gasket in the lid keeps the contents clean and dry. The interior of the box can be separated into two sections with a supplied divider. There is also a tray, designed to sit on a small edge, which holds small items. The lid's interior has what Yeti calls a Pack Attic. It consists of three zippered pockets which can secure a tablet and any documents you want to carry, such as a range membership, registration paperwork and ATTs. The box has a metal, reinforced locking ring on the left and right corner which accepts a standard Master padlock. For carrying, there are handles molded into the sides. Additionally, you can add a strap for shoulder carry, although that would be awkward.

It comes in three regular colours -- charcoal, white and tan. I have a



charcoal box, which is a colour I find matches the interior floor mats of most trucks, including my Dodge RAM. This is important because, if placed on the floor of your truck, it blends in nicely, thus adding a bit of security. Tan would also be a good choice for many vehicles. A white box with a large red cross decal added would make a great trauma box for a

range or large camp environment.

Over a three-year period, I have used the LoadOut GoBox 30 to secure optics, knives, cleaning gear and ammunition. It has been tossed in the back of my truck, where it bounced and slid around on bush trails when I forgot to tie it down. In camp, it has doubled as a seat and step stool. In addition to being stored in the back of my truck, it has been exposed to rain and sunlight/UV rays. Through it all, my gear has stayed intact, dry and dust free. The box itself has accumulated some scuffs and scratches, but it's still fully functional.

Outside dimensions: 20.5 by 14.6 by 11.1 inches (52.1 by 37.1 by 28.3 cm). Weight: 11.9 pounds (5.4 kilograms). Costs around \$350 CDN. 🍷



# Legal corner

Guy Lavergne, Attorney at Law

## Handgun Cases: What's Legal & What's Not



Whether some handgun cases of lighter construction are legal for storage or transportation remains an open issue.

La légalité de certains coffrets de construction moins robuste aux fins d'entreposage et transport demeure une question ouverte.

Is it possible that most handguns are being sold in cases which do not meet Canadian legal requirements for storage/transportation? Is it also possible that certain aftermarket cases from reputable manufacturers, which are being sold as handgun storage/transportation cases, are also non-compliant?

The idea for this topic came from an observation by an NFA member regarding the picture of a handgun case that was picked to illustrate one of my columns which he believed may not comply with Canadian legal requirements. In that regard, I would like to mention that I had no say in the selection of the picture chosen to illustrate my column, but that the reader's comment is not without merit, and deserves careful consideration.

### THE REGULATORY SCHEME

The requirements to be met by handgun storage/transportation cases

are spelled out in federal regulations. However, those requirements are anything but clear. Here are excerpts of the *Storage, Display, Transportation and Handling of Firearms by Individuals Regulations*<sup>1</sup> dealing with case requirements:

6 An individual may store a restricted firearm only if

- (a) (...)
- (b) it is
- (i) (...) stored in a container, receptacle or room that is kept securely locked and that is constructed so that it cannot readily be broken open or into, or

11 An individual may transport a restricted firearm only if

- (a) (...)
- (b) (...)
- (c) it is in a locked container that is made of an opaque material and is of such strength, construction and nature that it cannot readily be

broken open or into or accidentally opened during transportation;

### A FEW OBSERVATIONS ARE IN ORDER:

1. A handgun case is most definitely a container, as meant in the above regulations.
2. The required features of a case that is acceptable for storage versus transport are similar but not identical. They differ to some extent. Indeed, a transport case must be opaque, whilst a storage case does not have to be. A transport case must only be "locked," whereas a storage case must be "securely locked." Finally, the language regarding the construction of the case also differs slightly. Whether that was intentional or is the reflection of poor legal drafting is anyone's guess. Since most people use the same case for both storage and transport, you would be well advised to adhere to the stricter stan-

dard, which is the one for transport as far as construction goes, and the one for storage as far as the “lock” is concerned.

3. The construction standard, i.e., being “of such strength, construction and nature that it cannot readily be broken open or into,” is a subjective standard and somewhat vague. Indeed, if this standard were for a car, it would stipulate the type of material, and that it must be able to withstand a force of X, applied in a certain manner, during a certain time, without sustaining significant damage. In other words, the manufacturer and buyer would know what is required and only compliant items would be sold. No such luck with handgun cases!

One thing worth mentioning is that it is not the construction of the case that is regulated, but rather the storage/transportation of handguns. What this entails is that the case itself can be legally sold irrespective of its construction; it does not get screened or tested by any government agency. Whether it can be legally used for storage or transportation of a handgun is a different matter. Yet, failure to adhere to the abovementioned legal requirements may lead to criminal prosecution.

#### CRIMINAL OFFENCES

The *Criminal Code* lists two separate and distinct infractions regarding storage and transportation of firearms:

1. Negligent Storage Or Transportation Of A Firearm (Section 86(1) of the *Criminal Code*); and
2. Storage Or Transportation Of A Firearm Not In Accordance With The Regulations (Section 86(2) of the *Criminal Code*).

It is the Crown’s prerogative to frame a charge under either subsection 86(1) or 86(2). There is a subtle difference between the two offences. The latter, 86(2), requires the demonstration that the storage or transportation is not strictly compliant with the standard set forth in the regulations, whereas the former requires that the Crown shows that the storage or transportation constitutes a marked departure from the accepted standard. The accepted standard is usually taken as meaning the rules set forth in the regulations. Thus, in theory, it should be harder for the Crown to obtain a conviction

on a negligent storage/transportation charge – 86(1) – than it would be under a non-compliant storage/transportation charge – 86(2). Yet, the theory is not reflected in the reality, and the reason why it is so may have to do with the vagueness of the standard.

#### CASE LAW

I have researched Canadian legal databases and I could not find any instance where an individual was charged and convicted under Section 86(2) of the *Criminal Code* due to the flimsy construction of a handgun case. However, there is at least one notable instance where an individual was charged with “negligent storage of a firearm” under Section 86(1), for that very reason. The case reference is *R. v. Cowan*, 2017 MBPC 37.

In *Cowan*, the Crown’s expert testified that two specific models of gun cases of rather light construction, albeit (in his opinion) suitable for transportation, were not suitable for handgun storage at home<sup>2</sup>, the rationale for the distinction being the lesser degree of control or monitoring over the firearms during storage, as opposed to transportation. The argument is defensible in the abstract, except that per the letter of the regulations, the “transportation standard” appears slightly more stringent than the storage standard. The expert testified that the two cases could easily be broken open or into “by pulling the sides apart with his hands; removing the hinge pin with a pair of pliers and prying the case open; stepping on it and cracking the case open; or, cutting into the plastic case with a knife. In each instance, the firearm within the case could be extracted with little effort.”<sup>3</sup>

In turn, the defense expert (a Canadian Restricted Firearms Safety Course (CRFSC) instructor) testified that the cases, “although not the best quality cases (...) available on the market, (...) complied with the regulations<sup>4</sup>”. Apparently, “he added that the advice given to instructors teaching the course, should the question arise as to what “easily broken open or into” means, would be to invite consideration as to whether an eight-year-old child could easily access a handgun inside the case without requiring tools or damage to the case itself.”

The Manitoba Provincial Court judge

hearing the case first observed that “these particular sections of the regulations do not appear to be judicially considered, nor does there appear to be any case law where the type of storage case was at issue.”<sup>5</sup> He concluded that the “eight-year-old child” standard, as suggested by the defense expert, was not appropriate in view of the public safety goals of the legislation<sup>6</sup>. He also observed that both cases, albeit of somewhat flimsy construction, were consistent with illustrations from the CRFSC instruction manual, and fairly common<sup>7</sup>. As a result, he found that use of these cases did not constitute negligent storage<sup>8</sup>.

The result could have been vastly different, had the Crown charged *Cowan* under Section 86(2) instead. However, in that instance, *Cowan* might have been able to use the “void for vagueness” defense, arguing that the standard is so vague that an average person would be unable to ascertain what is expected. In other words, one should not be convicted of a criminal offence for non-compliance with a standard, if an average person cannot determine for sure what the standard is or means.

#### CONCLUSION

Whether stock handgun cases and some aftermarket cases of lighter construction are legal for storage or transportation of handguns in Canada remains an open issue. Unfortunately, we may only find out the answer when an unfortunate soul gets convicted of another victimless crime. In the meantime, we have no choice but to live with that uncertainty.

As to yours truly, I would rather err on the side of caution than find the answer the expensive way. If I can afford to shoot, I can afford a sturdy handgun case. In the end, it will be much less expensive than a bill for legal fees. 

<sup>1</sup> DORS/98-209

<sup>2</sup> At paragraph 84

<sup>3</sup> At paragraph 85

<sup>4</sup> At Paragraph 95

<sup>5</sup> At paragraph 120

<sup>6</sup> At paragraph 123

<sup>7</sup> At paragraph 127

<sup>8</sup> At paragraph 128



# Rubrique Juridique

Guy Lavergne, avocat

## Caissons Pour Armes De Poing: Lesquels Sont Légaux?

Est-il possible que la plupart des armes de poing soient vendues dans des caissons qui ne respectent pas les normes légales canadiennes en matière d'entreposage et de transport? Est-il également possible que certains caissons en provenance de fabricants réputés, qui sont vendus expressément pour l'entreposage et le transport d'armes de poing, ne soient pas non plus conformes à ces normes?

L'idée de ce sujet est venue d'une observation d'un membre concernant l'image d'un caisson d'arme de poing qui a été choisie pour illustrer l'une de mes chroniques et qui, selon lui, pourrait ne pas être conforme aux normes légales canadiennes.

À cet égard, je tiens à mentionner que je n'ai pas eu mon mot à dire dans le choix de cette image, mais que le commentaire du lecteur mérite un examen attentif.

### LA NORME RÉGLEMENTAIRE

Les exigences auxquelles doivent satisfaire les caissons d'entreposage et de transport d'armes de poing sont énoncées dans les règlements fédéraux. Toutefois, ces exigences sont tout sauf limpides. Voici des extraits du Règlement sur l'entreposage, l'exposition, le transport et le maniement des armes à feu par des particuliers qui traite des exigences relatives aux «caissons»<sup>1</sup>:

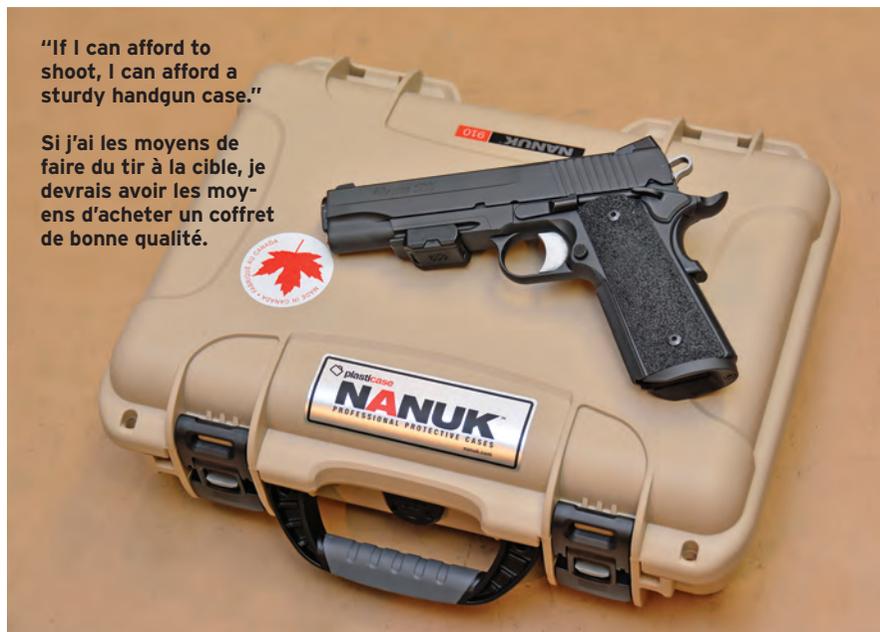
6 Le particulier ne peut entreposer une arme à feu à autorisation restreinte que si les conditions suivantes sont respectées:

- (a) (...)
- b) elle est, selon le cas:
- (i) rendue inopérante par un dispositif de verrouillage sécuritaire et entreposée dans un contenant, un compartiment ou une pièce qui sont gardés bien verrouillés et qui sont construits de façon qu'on ne peut les forcer facilement,

11 Le particulier ne peut transporter une arme à feu à autorisation restreinte que si les conditions suivantes sont respectées:

"If I can afford to shoot, I can afford a sturdy handgun case."

Si j'ai les moyens de faire du tir à la cible, je devrais avoir les moyens d'acheter un coffret de bonne qualité.



- a) (...)
- b) (...)
- c) elle se trouve dans un contenant verrouillé qui est fait d'un matériau opaque et dont la résistance, la construction et les caractéristiques sont telles qu'on ne peut le forcer facilement et qu'il ne peut s'ouvrir accidentellement pendant le transport;

Quelques observations s'imposent:

1. Un caisson d'arme de poing est très certainement un « contenant », au sens du Règlement susmentionné.
2. Les caractéristiques requises d'un caisson acceptable pour l'entreposage par rapport au transport sont similaires mais ne sont pas identiques. Ces caractéristiques diffèrent dans une certaine mesure. En effet, un étui de transport doit être opaque, alors qu'un étui de stockage n'a pas à l'être. Un étui de transport doit être « verrouillé », alors qu'un étui de stockage doit être « verrouillé de façon sécurisée ». Enfin, le libellé concernant la solidité du caisson diffère également. On pourra longuement tenter de déceler si ces différences intentionnelles ou

s'il s'agit du reflet d'une mauvaise rédaction juridique. Étant donné que la plupart des gens utilisent le même boîtier pour le stockage et le transport, vous seriez bien avisé de respecter la norme plus stricte, qui est celle pour le transport en ce qui concerne la construction du caisson et celle pour le stockage en ce qui concerne la « serrure ».

3. La norme de construction, c'est-à-dire être d'une résistance, d'une construction et d'avoir des caractéristiques telles qu'on ne peut le forcer facilement est une norme subjective et vague. En effet, si cette norme devait s'appliquer à une voiture, elle préciserait le type de matériau, et qu'elle doit pouvoir résister à une force X, appliquée d'une certaine manière, pendant un certain temps, sans subir de dommages importants. En d'autres termes, le fabricant et l'acheteur sauraient ce qui est requis, et seuls les articles conformes seraient vendus. Il en va autrement quant aux caissons d'armes de poing!

Une chose qui mérite d'être mentionnée est que ce n'est pas la construction de l'étui qui est

réglementée, mais plutôt l'entreposage et le transport des armes de poing. Ce que cela implique, c'est que le caisson lui-même peut être légalement vendu indépendamment de sa construction; il n'est ni certifié, ni testé par un organisme gouvernemental. Quant à savoir si un caisson peut être utilisé légalement pour l'entreposage ou le transport d'une arme de poing, c'est une tout autre question. Pour y répondre, il faut garder à l'esprit que le non-respect des exigences légales susmentionnées peut entraîner des poursuites criminelles.

#### INFRACTIONS CRIMINELLES

Le Code criminel énumère deux infractions distinctes concernant l'entreposage et le transport des armes à feu:

1. Entreposage ou transport négligent d'une arme à feu (par. 86(1) du *Code criminel*); et
2. Entreposage ou transport d'une arme à feu non conforme au Règlement (par. 86(2) du Code criminel).

C'est la prérogative de la Couronne de formuler une accusation en vertu des paragraphes 86(1) ou 86(2). Il y a une différence subtile mais importante entre les deux infractions. Le paragraphe (86(2)) exige la démonstration que l'entreposage ou le transport n'est pas entièrement conforme à la norme énoncée dans le Règlement, tandis que le paragraphe 86(1) exige que la Couronne démontre que l'entreposage ou le transport constitue un écart significatif par rapport à la norme acceptée. La norme acceptée est habituellement l'ensemble des règles énoncées dans le Règlement. Ainsi, en théorie, il devrait être plus difficile pour la Couronne d'obtenir une déclaration de culpabilité pour une accusation d'entreposage ou de transport négligent (Par. 86(1)) que pour une accusation d'entreposage ou de transport non conforme (Par. 86(2)). Pourtant, la théorie ne se reflète pas dans la réalité, et la raison pour laquelle il en est ainsi est peut être liée à l'imprécision de la norme.

#### JURISPRUDENCE

J'ai fait des recherches dans les bases de données juridiques canadiennes et je n'ai trouvé aucun cas où une personne a été accusée et déclarée coupable en vertu du paragraphe 86(2) du Code criminel, en raison de la conception

peu robuste d'un caisson d'arme de poing. Toutefois, il y a au moins un cas notable où une personne a été accusée d'« entreposage négligent d'une arme à feu » en vertu du paragraphe 86(1), pour cette raison même. L'affaire est *R. c. Cowan 2017 MBPC 37*. Dans l'affaire Cowan, l'expert du ministère public a témoigné que deux modèles communs de caissons d'armes à feu de construction peu robuste, bien que (à son avis) convenant au transport, ne convenaient pas à l'entreposage d'armes de poing à la maison, la raison de la distinction étant le degré moindre de contrôle ou de surveillance des armes à feu pendant l'entreposage, par opposition au transport. L'argument est défendable dans l'abstrait, sauf que, selon la lettre du Règlement, la « norme de transport » semble légèrement plus stricte que la norme d'entreposage. L'expert a témoigné que les deux caissons pouvaient facilement être ouverts « en écartant les côtés avec ses mains; en enlevant la goupille de charnière avec une paire de pinces; en marchant dessus ; ou, en coupant les parois de plastique avec un couteau. Dans chaque cas, l'arme à feu pouvait être extraite du caisson avec peu d'effort. À son tour, l'expert de la défense (un instructeur du Cours canadien de sécurité dans le maniement des armes à feu à autorisation restreinte<sup>3</sup> (CCSMAFAR)) a témoigné que les caissons en question, « bien qu'ils ne soient pas de la meilleure qualité (...) sont disponibles sur le marché, (...) et sont conformes aux règlements ». Apparemment, « il a ajouté que le conseil donné aux instructeurs qui enseignent le cours (CCSMAFAR), si la question se posait de savoir ce que signifie « qui peut être facilement ouvert », serait de se questionner à savoir si un<sup>4</sup> enfant de huit ans pourrait facilement accéder à une arme de poing à l'intérieur du caisson sans avoir besoin d'outils ou d'endommager le caisson ».

Le juge de la Cour provinciale du Manitoba saisi de l'affaire a d'abord fait remarquer que « ces articles particuliers du Règlement ne semblent pas avoir été examinés par les tribunaux, et il ne semble pas y avoir de jurisprudence où ce type de cas d'entreposage était en cause<sup>5</sup> ». Il est toutefois venu à la conclusion que la norme de l'« enfant de huit ans », comme l'a suggéré l'expert de la défense, n'était pas appropriée,

compte tenu des objectifs de sécurité publique de la loi<sup>6</sup>. Il a également fait remarquer que les deux caissons, quoique de construction peu robuste, étaient conformes aux illustrations du manuel d'instructions du CCSMAFAR et assez courants.<sup>7</sup> Par conséquent, il a conclu que l'utilisation de ces cas ne constituait pas un entreposage négligent<sup>8</sup>.

Le résultat aurait pu être très différent si le ministère public avait plutôt accusé Cowan en vertu du paragraphe 86(2) du Code criminel. Cependant, dans ce cas, Cowan aurait pu utiliser la défense d'« invalidité pour cause imprécision », en faisant valoir que la norme est si vague qu'une personne moyenne serait incapable de déterminer ce qui est attendu d'elle. En d'autres termes, une personne ne devrait pas être déclarée coupable d'une infraction criminelle pour non-conformité à une norme, si une personne moyenne ne peut pas déterminer avec certitude ce qu'est ou signifie la norme.

#### CONCLUSION

La question de savoir si les caissons d'armes de poing d'origine et certains caissons de construction moins robuste vendus sur le marché secondaire sont légaux pour l'entreposage ou le transport d'armes de poing au Canada demeure ouverte. Malheureusement, nous ne connaissons probablement la réponse que lorsqu'un malchanceux sera reconnu coupable d'un autre crime sans victime. En attendant, nous n'avons d'autre choix que de vivre avec cette incertitude.

Quant à votre humble serviteur, je préfère pêcher par excès de prudence, plutôt que de trouver la réponse de la « manière coûteuse ». Si je peux me permettre de tirer du pistolet, je peux me permettre un étui d'arme de poing robuste. Au final, ce sera beaucoup moins onéreux qu'un compte d'honoraires d'avocat. 

<sup>1</sup> DORS/98-209

<sup>2</sup> Au paragraphe 84

<sup>3</sup> Au paragraphe 85

<sup>4</sup> Au paragraphe 95

<sup>5</sup> Au paragraphe 120

<sup>6</sup> Au paragraphe 123

<sup>7</sup> Au paragraphe 127

<sup>8</sup> Au paragraphe 128



# NFA Book Shelf

Bill Rantz

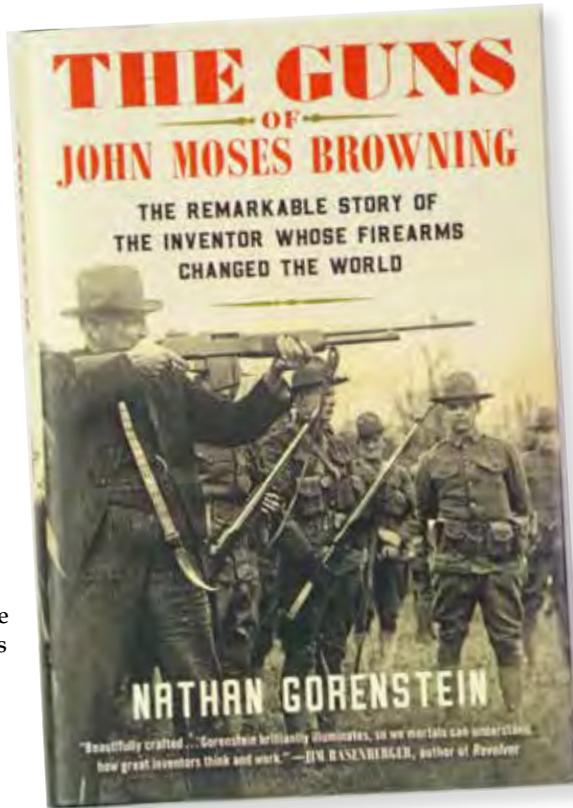
## The Guns Of John Moses Browning

**J**ohn Moses Browning is recognized for his prolific development of firearms during the late 19th and early 20th century. The significance of mechanisms designed and patented by Browning is reflected in worldwide production numbers estimated to have reached 40 million firearms. Virtually every target shooter, handgun enthusiast, hunter, soldier or law enforcement officer is familiar with the name Browning.

Numerous books have been published which focus on specific firearms designed by Browning, with the sole biography written by John's eldest son in the 1950s. Author Nathan Gorenstein, intent on writing a second, more complete biography, was supported by John's descendants. This support, along with documents and assistance from a variety of other sources, enabled Gorenstein to publish this highly informative book.

In 1855, John was born into a large Mormon family residing in Ogden, Utah. Being raised in financially challenging times by a gunsmith father was a significant factor in John's life. At the age of 10, John fashioned a crude firearm in his father's shop using a scrap musket barrel. While John aimed the gun, his younger brother Matt fired it using embers, and the boys harvested three grouse with a single shot.

John and Matt eventually bought out their father's gunsmith business in 1879, calling it J. M. Browning and Brothers. A vintage photograph of the meagre storefront shows five Browning brothers, each holding one of Browning's single-shot rifles which are still in production. In this building, John's ideas became prototypes as he stood behind brother Ed at his workbench, advising him exactly how to shape each part. Browning did not make blueprints, but instead relied on crude diagrams. It is believed John



could visualize how parts worked together in three dimensions.

John admitted he was born at the perfect time to become a firearm inventor, as this was when black powder was being replaced by smokeless powder. Additionally, advances in metallurgy and manufacturing allowed for the efficient assembly of thousands of identical firearms using parts machined by skilled workers.

Matt Browning, the financial expert of the brothers, was a shrewd businessman who expanded the sporting goods store and invested in new Utah industries. Matt was listed as co-inventor on 35 of Browning's 128 patents. His skills were particularly valuable when negotiating with Winchester, Colt and Belgium's Fabrique Nationale d'Armes de Guerre (FN).

John travelled extensively to demonstrate his products, including over 60 voyages to Europe. John was at the FN

factory on Nov. 26, 1926, when he fell ill and died. Records confirm the company's financial success, as upon their deaths both John and Matt were multi-millionaires in today's currency.

Browning's firearm designs played a dominant role not only in the development of firearms, but also in world history. Unfortunately, an inventor cannot control the use of their genius, as on June 28, 1914, a Belgian-made FN 1910, of Browning design, was used to assassinate Archduke Franz Ferdinand, sparking the First World War.

John maintained his preference was developing sporting arms. However, his military firearms helped preserve the freedom of the western world. Browning's .30 and .50 calibre machine guns, 1911 Colt pistol and Browning Automatic Rifle (BAR) played significant roles in the battles of both the Second World War and the Korean conflict.

*The Guns of John Moses Browning* currently lists for \$35. 

**Title:** *The Guns Of John Moses Browning*

The Remarkable Story Of The Inventor Whose Firearms Changed the World

**Title:** The Guns of John Moses Browning

**Author:** Nathan Gorenstein

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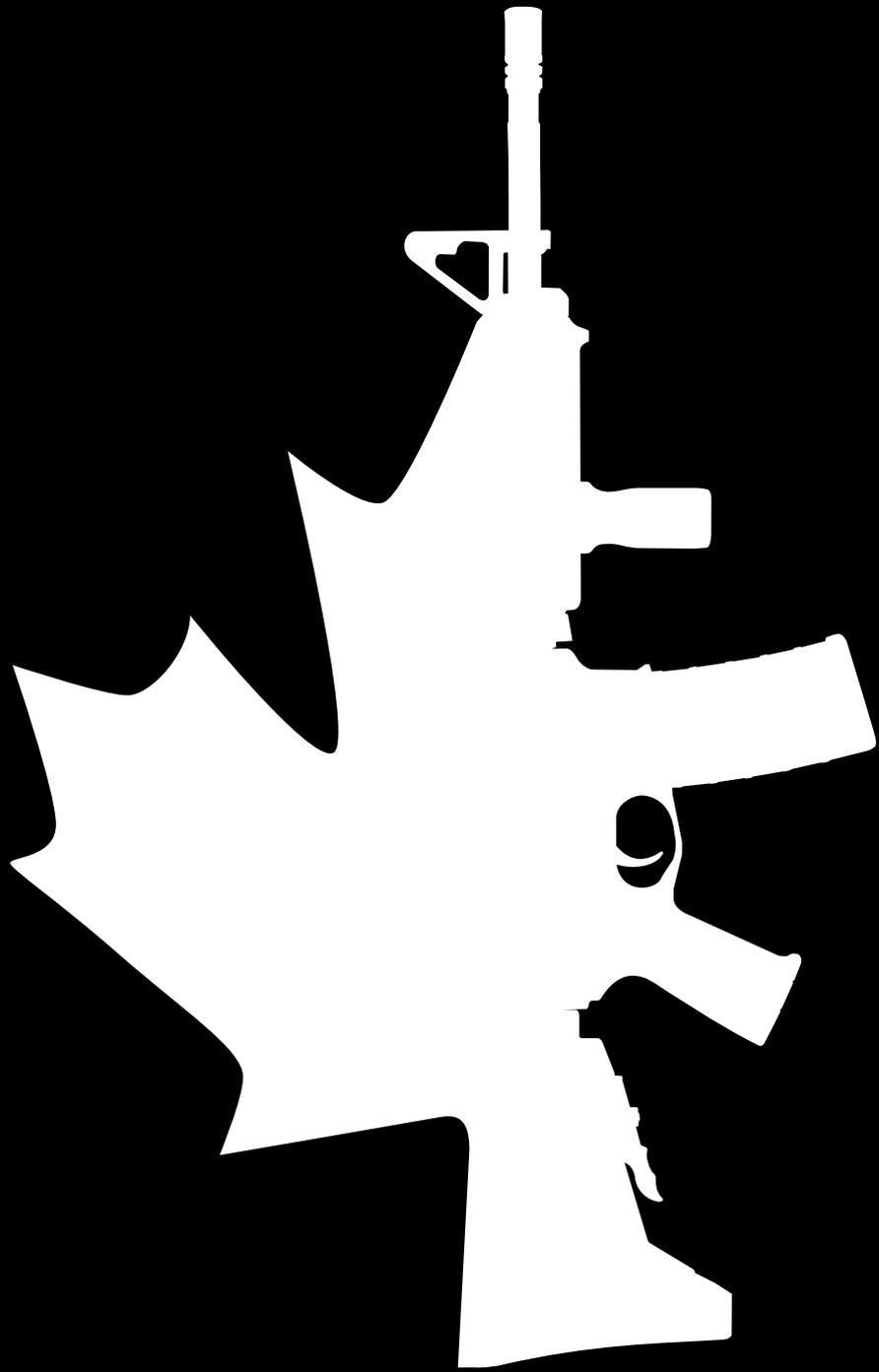
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