Pistols Defined: double-action, single-action, DA/SA, and striker-fired explained

# **CALLBERGE** THE CANADIAN FIREARM MAGAZINE

## If holds IS rounds. If fis non-restricted. If fis made of polymer and steel. If fis a pump-action, bull pup 12-gauge shotgun. If fis one of the most sought-after guns available.

# It is the KSC





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# **BEING A CANADIAN GUN OWNER HAS** NEVER BEEN SO AWESOME.











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elcome to the premiere issue of Calibre; Canada's only firearms magazine. What does that mean? Well, it means that within the following pages you'll find up-to-date reviews of products available in the Canadian firearms market, tested in much the same manner as they're most likely to be used. From five-figure, custom-ordered Perazzi shotguns, to the blackest and most tactical of restricted rifles, if it's a product that is of interest to the Canadian sport shooter or firearms collector, we'll test it, and shall strive to provide an honest, unvarnished, and unbiased opinion... and one that works to maintain a Canadian perspective.

But Calibre is much more than product reviews. Inside, you'll also find features on the Canadian firearms industry, such as this month's examination of the burgeoning and popular grey market gun industry. A controversial subject, the grey market can hold some excellent deals on firearms that may be particularly difficult to locate or are produced by manufacturers that may not support the Canadian market, and in this regard the service supplied by independent importers is a huge asset to the Canadian gun owner. However, when an importer's business model shifts from that of offering a service to that of offering products en masse, in doing so it does a disservice to the licensed distributors upon which the Canadian firearms market relies. Often providing negligible savings, the large-volume grey market importers invite criticism of licensed distributors, all the while peddling products that wouldn't have even earned an FRT number if it wasn't for the hard work and financial commitment of a licensed distributor. So in reality, diverting money away from licensed Canadian firearms distributors in favour of US retailers via large volume grey market importers is accomplishing little more for our firearms market and industry than cutting its nose off to spite its face.

So to that end, I, the editor of this magazine, would personally like to thank you for picking it up. As you may have deduced from the price tag (or lack thereof) on the cover, Calibre's only source of income is the advertisements you'll find herein, which means this magazine will only continue to exist so long as the Canadian firearms industry is willing and able to support it... and readers such as yourself play a huge role in that. So, if I may, I'd like to ask your assistance with a few tasks.

The first of which is easy: just let us know how we're doing! Starting with the next issue, Calibre will feature a feedback section where we will be publishing readers' emails and occasionally awarding prizes to the best correspondence we've received over the two months that



# Sighting In

By Daniel Fritter, Editor

will separate issues. And of course, if you've got an idea that you think would make for a good article, or have a line on a subject that you think isn't getting the attention it deserves, feel free to drop us a line. In any case, we look forward to hearing from any and all at info@calibremag.ca.

Otherwise, if you like what you see on these pages, and would like to see more issues in the future, please, let somebody else know. Don't get me wrong, we'd obviously love to hear how much you enjoyed flipping through our magazine, but at the end of the day our printing and shipping companies won't accept satisfied readers' correspondence in lieu of payment... sadly. No, when you get down to brass tacks, the continued existence of this magazine relies on a steady income of advertising revenue. That's why, within these very pages, you'll find a few of our own ads, known in the publishing industry as "house ads." Although many might think it would be easy to convince firearm companies to buy advertising space when you represent the only firearms magazine in the market, the reality is that being the only dedicated firearms magazine in the market also means that we can't simply expect anyone to see the value in print media advertising; we need to demonstrate it. And that is where you can come in to help out for the second time.

While we're pounding the proverbial pavement seeking out new editorial life and new advertising accounts, if you should happen across one of advertisements inside this issue and find your interest piqued, please do let whomever you end up speaking to about it know where it was that you spotted the product or service you're enquiring about. Likewise, if you know of a product, company, retailer, or service that you think other firearms enthusiasts might like to know about, or that could benefit from advertising, even the slightest mention of our magazine's name from a consumer's lips can be enough to demonstrate that there's value in it.

Of course, if you find yourself disinclined to do the above, there is still but one thing that we'd ask of you: to recycle this little magazine in the truest sense of the word. When you're done with these 48 pages of low-gloss goodness, don't just toss them in the garbage or the nearest blue box; pass it along to a hunting buddy, or leave it at your local gun club for someone else to enjoy! So long as the words are legible and the photos attractive, even the most dog-eared and well worn magazine is capable of entertaining and educating.

So again, thank you for taking the time to read Calibre, and until next time, shoot well.

# Gun Gear



## Smith and Wesson M&P22

Although the Smith & Wesson M&P series of polymer pistols may have been introduced to the Canadian market years ago, it's taken a while for Smith & Wesson to get around to making the much-needed .22LR version thereof. Useful for buyers looking for a rimfirecalibre pistol that mimics the handling and manipulation of a full-size centrefire pistol, the M&P22, as it's known, shares almost all of its dimensions and layout with its larger brethren (although the barrel's slightly shorter), and even tips the scales at precisely the same weight as the 9mm-firing, full-size M&P9. Of course, being chambered in a rimfire calibre does mean there are some internal changes, which include the adoption of an internal hammer-fired action (as opposed to the standard M&P's striker-fired action), as well the fitment of a non-removable, or optionally deleted, thumb safety. Build by Walther, the M&P22 is available in the Canadian market as of this issue's publication, and can be found at numerous retailers for roughly \$450.



## Elcan SpecterDR 1-4X Dual Role Sight in Flat Dark Earth

Flat Dark Earth: it's hard to imagine a more boring colour. Created specifically to leave the smallest possible visual impression upon an onlooker's visual cortex, it is difficult to believe that this unabashedly bland colour is partly responsible for the roughly \$2,000 price tag affixed to this special edition of the Elcan SpecterDR optic. Although available in limited numbers, this Canadian-made optic is available in both 5.56- and 7.62-specific variants, with the sole reticle option being a standard crosshair with ballistic drop markings as well as a red dot in the centre. Both versions boast five illumination settings allowing the user to select between an completely illuminated crosshair or a traditional red dot, with the dot occupying 6 MOA in 1x CQB mode and just 1.5 MOA in 4x Long Range mode.



## ENDO Apparel M16 Fire Selector Switch T-Shirt

Part of the fun of the firearms hobby is the minutia that shooters all enjoy; be it that satisfyingly solid sound of a high-grade trap gun closing on a pair of loaded chambers or the familiar noise of a round being racked into a semi-automatic rifle. But it's not often that one can wear an insignia of that minutia plastered across their chest in such an intriguing, and yet understated manner as this. Coming from the makers of the fine Everyday No Days Off firearms blog, the M16 Fire Selector Switch t-shirt is just one in a line of relatively classy firearmsinspired designs that you might actually be allowed to be seen in public alongside your significant other in. Although American in origin, the shirts are available in either 50/50 cotton-poly or 50/25/25 poly-cottonrayon, carry the paltry price tag of \$25 US, and are the closest you'll get to a full-auto AR15 that can be shipped (for free, no less) to Canada without drawing the ire of either American or Canadian customs officials.



Although their average price tag may initially cause some jaws to drop, there is a very good reason Vancouver-based Arc'Teryx has gained the worldwide reputation for unparalleled quality that they currently enjoy: their stuff is probably the best in the world. Having produced garments and gear for everyone from Everest climbers to the US Marine Corps, they're in the business of providing equipment that simply has to work. For those in British Columbia, that means it's got to be durable, and waterproof... and their Alpha jacket is both of those things. Specifically designed for Law Enforcement and the Armed Forces, as are all things in the Arc'Teryx LEAF collection, the Alpha can now be had in Multicam for \$850, or solid black or "crocodile" (aka brown) for \$750. Combining a long Gore-Tex shell with super-stout stitching and well thought-out pockets, the Alpha is, as most Arc'Teryx garments are, nearly indestructible and guaranteed to perform; a fact borne out by the jacket's earning of a NATO stock number.



## Beretta DT11

If you've been around competitive clayshooting for any length of time, then the Beretta DT series of trap gun needs no introduction. The most successful competition shotgun ever made, the DT10 set the standard by which many shotguns were to be measured, offering up supremely reliable function with all the features a highly skilled competition shooter could want. However, it's also guite long in the tooth, and Beretta's not one to rest on their laurels. So, they've introduced this: the DT11. Although following in the DT10's footsteps, the DT11 boasts a new balance point (due to the wider receiver), slightly revised ergonomics, and new "Steelium Pro" barrels. By far the most notable revision, these new barrels are cold hammer forged over a mandrel that produces a bore of what Beretta calls "progressive conicity." Loosely translated from Italian marketing-speak, that means the barrels' forcing cones stretch from chamber to choke, resulting in mild recoil and better patterns. Of course, this precludes any opportunity to bore the barrels out on a tradition gun lathe, which in turn increases Beretta's cost of manufacture. Thankfully, Beretta hasn't passed these costs along, and the DT11 looks to debut with prices somewhere in line with the DT10 that came before it. Look for them to start showing up en masse soon... at least, as en masse as a shotgun of this ilk is ever going to be!

## Vortex Optics Ranger 1000

If you're into shooting long range, but live in or around a major city, chances are good that you're practicing out in the wilds known as Crown Land. Although certainly not without its perks, one of the biggest issues surrounding shooting on crown land is the continuous problem of distance... or rather, knowing what the distance is. And although there's no shortage of rangefinders on the market already, there's something to be said for Vortex's awesome combination of quality and cost. Capable of measuring distances of up to 1,000 yards, the Vortex Ranger 1000 can deliver distances on the run whilst in Scan mode or in its more accurate Advanced mode, with the default Horizontal Component Distance mode giving angle-compensated distance readings. And as with all Vortex products, should it die as a result of nearly any natural cause, Vortex will replace it absolutely free of charge for as long as you own the product.

# **Gun Gear**



Redfield

Quality construction is something that most firearms enthusiasts look for. Oh sure, there are corners that some folks don't mind cutting once in a while; perhaps opting for the slightly cheaper ammo for range days rather than send the topshelf stuff through paper... but for the most part it's a market that

responds to quality goods. And Redfield optics are quality goods. Typically assembled in Oregon alongside their more expensive Leupold counterparts, with the same care and

attention as their more expensive brethren, the Redfield brand's resurrection has been a real blessing to those that want Leupold quality but don't necessarily need the gamut of Leupold's high tech features and lens coatings. However, Redfield's latest scope, the Revenge, breaks with that tradition, and is made entirely in the Philippines. However, it still carries their totally transferable, no-questions-asked lifetime warranty. Employing a unique rangefinding reticle that accurately measures the distance to ungulate-shaped targets, the Revenge ticks all the right boxes, and when purchased in the extremely useful 3-9x42mm size, tips the fiscal scales at roughly \$220 from your local Leupold/Redfield dealer.

### FrogLube **CLP-Plus**

Why should you care about FrogLube? Well, for two reasons: first off, it is apparently one of the best protectors of gun parts around, significantly reducing clean-up time and allowing even heavy carbon deposits to simply wipe off, and secondly, because it's non-toxic, biodegradable, and made from 22 different American-grown plants. The final product is actually so close to food-grade that it can be used as a lip balm! This means there's no harmful VOCs floating around your gun bench, nor will it cause irritation, should it find its way onto your face or hands while shooting. Developed by a US Navy SEAL, it's purposely engineered to resist water and prevent corrosion, and comes in both liquid and paste forms, either of which can be used to both clean, lubricate, and protect everything from rifle bores to magazine followers.





### **Umbrella Corporation Weapons Research Group Rifle Grip**

If there's one thing AR-15 guys love, it's the dearth of accessories and parts that can be purchased and fitted to every AR to ensure that though there may be many like it, "this one is mine." And this little grip is just one of the latest AR-15 accessories to make it into the Canadian market. Produced by the oh-so-aptly-named Umbrella Corporation Weapon Research Group (fans of the Resident Evil series of video games and movies will get it), the piece boasts a significantly more vertical grip angle than the traditional AR-15 grip, which in turn increases comfort for those that prefer to keep their rifle on a shorter stock. Reducing wrist strain, providing a more ergonomic trigger pull, and increasing the contact area with the shooter's palm for a rifle held close-in, the grip is made of an easily stippled polymer, and was developed with Magpul's input, (hence the similar profile to Magpul's MOE grip) which bodes well for its quality. And the price? Just a penny shy of \$22 bucks, with One Shot Tactical Supply being the official Canadian distributor for this piece of classy zombie-inspired goodness.

**Mosin Nagant Sniper Rifles** 



The Mosin Nagant's a great gun. Over a hundred years of popular use proves it. Of course, one of the most fun variants is the sniper rifle version, with the odd offset scope mount, bent bolt handle, and long barrel. The only problem has been that their rarity has made them much more appealing to collectors rather than shooters. However, a new batch of Mosin Nagant snipers has been imported, and these ones are definitely appealing to shooters! Arsenal refurbished and built from former policeissue rifles, these rifles boast impressively well-maintained actions and bores, and since they're not as-original World War II hardware, they carry an attractive MSRP of just \$599.





Basically an abbreviated variant of the Sig SG540 military rifle, the FAMAE line of carbines and SMGs have landed on Canadian shores. Available in three flavours (SAF, Mini SAF, and SAF-200, pictured) FAMAE replaces the SG540's rotating rifle bolt with a more SMG-appropriate blowback bolt design, which in turn strips 9mm rounds from transparent polymer mags with molded-in clips for attaching two or more magazines together. As pictured, the SAF-200 updates the design with an integral foregrip and rail, while the standard SAF sports a traditional wrap-around handguard and skeletal stock. The tiny Mini SAF shrinks the entire package to just 12.5" overall, and boasts a vertical foregrip and folding stock. And the price for that exclusivity? Between \$1,999 and \$2,199, available from Tactical Imports.





### **Dlask Arms** DAR-22 Threaded Receiver

Canadian firearms manufacturer Dlask has just created the ultimate solution for anyone that has ever been frustrated with the impossibility of free floating their Ruger 10/22's barrel. Using a significantly beefed up receiver (the leftmost one pictured) to accept threaded barrels and keeping them fixed in place with the combination of a reinforced receiver and a barrel lock nut, the system provides enough strength to allow for true free floating of the barrel, which should help shrink groups and increase accuracy. Look for a full review of this receiver and its various barrels in a future issue of Calibre.



# THE ONE THAT GOT AWAY





# Where to Shoot: Vancouver Gun Club



A lthough the full-service rifle, pistol, and shotgun ranges that ring the Lower Mainland may be ever-popular, there is something to be said for the sublime sensation of experiencing a well-laid sporting clays course on a brisk winter morning. And it is for this sensation that the Vancouver Gun Club exists.

Located in South Richmond, the incongruously named Vancouver Gun Club is the largest shotgun-only shooting facility in the Lower Mainland, with countless trap houses, two skeet fields, two Olympic trap bunkers, one five-stand field, and a full sporting clays course. Hosting a myriad of PITA and ATA tournaments, as well as the Olympic Trap Nationals this past year, the well-appointed facility is a home to hundreds of active shooters, ranging from the occasional sporting clays shooter looking to hone their hunting skills to ex-Olympians.

Operating only on Sunday mornings, the sporting clays course is the club's most popular attraction, and peak season is usually accompanied by a wait list and squad size limits to allow as many participants as possible to enjoy the variable and challenging course. Conversely, trap, skeet, and bunker operate on Wednesdays,



Saturdays and Sundays, with the Vancouver Gun Club website being the best place to find the business hours, as they are seasonal and subject to change based on event timings.

The atmosphere is incredibly relaxed, and the pace of the shotgun sports invite friendly conversation between rounds. As such, it's a great place for new and experienced shooters alike, with the club offering day cards for \$15 per person. Obviously a shotgun is required equipment for all shooters, but Winchester ammunition can be purchased at the club. Each round of trap or skeet will set you back \$6.50 for 25 targets, with the 50-bird Sporting Clays costing \$13. Should you find yourself hooked, memberships can be had from \$150.

## Location: 7340 Sidaway Road, Richmond, BC Hours: Wednesday, Saturday, and Sunday. Check website for details. Cost: Day card: \$15 Annual Membership: \$150 Targets: \$6.50 for trap/skeet, \$13 for sporting clays. What to bring: A shotgun and target ammo. Website: www.vancouvergunclub.ca

Phone: 604-278-0832



They cost as much as a compact car, are made to measure in Italy, and can take over six months to finish. But are they worth it?

There was only one way to find out.



t's a parallel that's too easy to draw; that of Ferrari and Perazzi. Both being of Italian origin and having tempered their reputations in the heat of competition, the dualities these brands share are too obvious to ignore. And topping the list of those hard-to-ignore dualities is, of course, their substantial price tags. But whilst a Ferrari's exorbitant price tag is readily validated by all manner of carbon fiber, aerodynamic accents, technological wizardry, and stunningly quantifiable performance, the matter of how Perazzi justifies their own five-figure price tags is somewhat less obvious. But that's a far cry from saying they aren't justified: during the London Olympics, Perazzis were the favoured tool among trap and skeet shooters, with 75 out of the 132 shooters preferring the Italian marque. But should you?

## The Fitting

If there's one thing that's important to a shotgun-wielding competition shooter, it is the fit. A nebulous term that's bandied about far more often than it's actually understood, it really only boils down to one thing: how easily and naturally a shotgun can hit what it's pointed at. Seeing as shotguns are fitted with no legitimate aiming apparatus, the competitive shotgun shooter relies on a good gun fit and a mount to locate the barrels

consistently in relation to their eyes. This allows the shooter to see the target, and swing the gun through the target's plane of travel almost subconsciously, pulling the trigger as they swing through the clay target itself. Obviously, to do this correctly 146 out of 150 times at targets moving at speeds of up to 110 miles per hour requires a high degree of expertise on the shooter's part, but it also demands the use of a gun that has been absolutely perfectly fitted until it becomes an extension of the shooter's arm, rather than an 8 pound weight flung about at the end of one.

And this is where Perazzi begins their process. Using what's known as a "try gun" (an action fitted to a stock that allows for massive adjustments in all manner of directions) and a trained eye, Perazzi's representatives meet potential clients and tune and tweak for hours on end before they arrive at what they've determined to be the best dimensions. The try gun allows the fitting team to make adjustments on the fly, but also allows the client to get a good feel for the proposed dimensions by actually shooting targets, which in turn engenders further feedback and adjustment. All of this is done in order to give the best gun fit possible. In the case of our test gun, this process entailed an entire Saturday and somewhere near a hundred rounds of ammunition before we could conclude we'd reached the perfect figures, which were then confirmed with a few more rounds on Sunday after a decent rest.

<sup>6</sup> Perazzi purports to be the only manufacturer of scale that produces each gun, individually, by hand, and under one roof. <sup>9</sup> <sup>9</sup>

## The Manufacture

Once the fitting is complete, the measurements are then sent to Perazzi's Brecia-based manufacturing facility, where the difference between Perazzi and other manufacturers continues. While even mainstream manufacturer Beretta is now offering a stock-fitting service on their higher end competition guns, Perazzi purports to be the only manufacturer of scale that produces each gun entirely by hand, and under one roof. That means that Perazzi themselves have direct control over each and every pin, spring, and piece that goes into their guns, which in turn allows them to implement better quality controls. Similarly, it allows Perazzi's craftsmen to fit each individual part to each individual action perfectly, avoiding the lowest-common-denominator sort of tolerances that are required by other manufacturers' outsourcing processes. By the time a gun is finished, each part, from the barrels to the ejectors to the trigger group, will have all been fitted to the gun just as the gun was fitted to the owner, and all will bear the same serial number to identify them as parts specific to that gun's action. Optional spare parts are treated to the



same fitting and serialization process as well, such as spare triggers, and additional barrel sets.

## The Delivery

The result of all this is, of course, a ridiculously reliable action. An examination of our test gun proved that the marketing packages and press releases from Perazzi are a far cry from lip service; there isn't a surface within our MX2000/8 that isn't absolutely perfectly mated to that of its neighbours. Assembling the gun for the first time was absolutely free of any of the drama that has accompanied the assembly of other brand-new over/



unders; because everything's already been fitted together, the break-in period doesn't rely on the various metal parts lapping themselves against one another, so there's no undue force required to snap the fore end in place, nor was the gun unduly difficult to open. Once it was together, however, it's closure was the very definition of solid. Completely devoid or snaps, cracks, or undue thumps, it was so free of acoustic drama that at first one was forced to wonder if it had actually locked up at all! However, over 16,000 rounds later without a single hiccup to report, it's obvious that our MX2000/8 is working just fine. And even more impressive, after all those rounds, it hasn't changed one bit. The finish remains as perfect as ever, the internal surfaces are all still totally free of mars or burrs, and it opens, fires, and closes in exactly the same manner as it did on day one. And we haven't been babying it, either, as you can see from the photos.

And as for the performance... well, suffice it to say that that is yet another aspect in which Perazzi can be thought on par with that other famous Italian marque; Ferrari. Balancing extremely well in the hands, the gun's weight lies almost perfectly between the forehand and the shoulder, leaving your trigger hand with little to do beyond pull the trigger. And thanks to the relatively unique placement of the locking lugs astride the barrel block, the action is more



compact than its competition, which has the nice effect of allowing the entire gun to be built around a smaller platform. This means the shooters eyes, cheek, and hands are all naturally located closer to the centre of the bores than they would be on a gun with the traditional bottom-mounted locking lug. Similarly, the lack of "ears" that so typically denote the greener cross-bolt lockup system employed by Beretta's DT10 and DT11 make the gun appear much smaller to the shooter's eye, with the barrels and action all forming a nice, uninterrupted tapering line out to the horizon. These might just be tiny differences, but they're just a few of the many tiny differences that amount to a vastly more lithe and lively feeling gun than most.

## The Verdict

So, how do you know that a Perazzi's for you? Well, if upon reading this article you find yourself continuously saying "but a Remington 870 breaks targets just fine," then chances are good that a Perazzi's not in your future... at least not yet. And that's alright, because these guns simply are not for everybody, just as much as they don't exist solely for the consumption of the hobnobbing overindulgent snobs that some people mistake all Perazzi owners for. Put simply, these guns are for those avid shotgun enthusiasts that refuse to compromise on their equipment, and that means shooting a gun that's been custom made to their measurements and specifications, and was entirely hand-fitted for utter reliability.

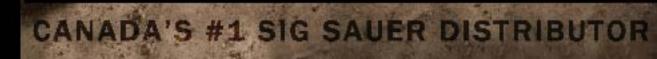
However, that also means coming to terms with some seriously hefty price tags. Starting at roughly \$9,000 dollars and rising to a stratospheric \$440,000, there is simply no avoiding the elephant in the room: these are not cheap guns. The average Perazzi falls somewhere between the topmost line of off-the-rack Beretta shotguns and the absolutely bespoke guns provided by the craftsmen at Boss, Holland & Holland, and Purdey & Sons, and so too do their prices. However, by building their company off a business model that blends the most important benefits of ordering a bespoke gun (custom gun fitting and whatnot) with just enough of the production line ethos to keep prices at least somewhat reasonable, Perazzi should be commended for maintaining a price list that's much closer to that of a Beretta DT10 or DT11 than they are to even the cheapest of Purdey, H&H, or Boss products.

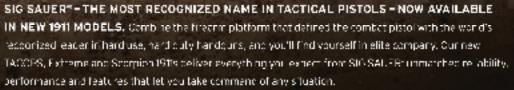
At the end of the day, when a company can boast such an impressive roster of supporters and clients that they total more than half of an entire Olympic competitive field, they must be doing something right. And what's even more impressive, by the time the Olympics had wrapped up, Perazzi had helped a whopping 12 of the 15 Olympic shotgun medallists mount the podium, all of whom did it with exactly the same guns that Perazzi sells every day, to thousands of happy clients.



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# WHAT YOU NEED TO KNOW

Ithough the term "shades of grey" may now be associated with quite an unfortunately popular work of fiction, it had for years prior served as a wonderfully vague descriptor of damn near everything from Canada's political landscape to the discussion of morality versus legality. But one thing it's not often associated with is the gun market. After all, in a society encumbered by as many legislative categorizations and restrictions as Canada's is, the only "grey" guns you'd expect to come across would be those treated to a particularly light parkerizing process. But you'd be wrong.

## What is a grey market gun?

In short, a grey market gun is a gun that's been brought into the country by some means outside the manufacturer's sanctioned distribution network. As the term implies, there's an entire range of ways in which this occurrence might take place, but the most common is quite innocuous: simply importing the gun from a U.S. retailer. Under most circumstances, this procedure is entirely legal, with both the exporting U.S. retailer and Canadian importer bearing all of the official paperwork and permits required to accomplish the purchase. Of particular interest to firearms collectors and those that prefer their guns with a certain air of exclusivity, this procedure allows Canadians to acquire rare, uncommon, and antique guns for which there are no Canadian distributor networks. As one would expect with such firearms, post-purchase service is guite often the responsibility of the purchaser, with no warranty expected nor parts support guaranteed. The key word here is "expected."

## Are there any downsides?

Aren't there always? Although the purchaser of a rare or antique rifle might not expect any post-purchase service or parts support, that's not always the case when someone purchases a brand new firearm made by any number of contemporary manufacturers. In fact, when many purchase a brand new gun, the expectation is that their purchase is fully guaranteed for typically one year. However, that expectation hinges upon the simple fact that manufacturers are only prepared to honour their warranties when the firearm is purchased through a licensed distributor. This, of course, means that firearms purchased outside the recognized distribution network are frequently privy to none of the guaranteed service nor parts availability of those distributed through the recognized network of dealers and retailers. And although it might seem preposterous that manufacturers might neglect to service a firearm that's been purchased and imported in a legal fashion based on nothing more than the method by which

it was procured, the issue is one of control: manufacturers can only guarantee the quality of those products over which they have direct control over the manufacture and distribution thereof.

Furthermore, there is the issue of the additional services some manufacturers offer when one of their firearms is purchased. This may vary from simple rebate programs to complex value-added services. For example, in researching the Perazzi article found elsewhere in this issue, Calibre staff came across a Vancouver-based "importer and distributor" of Perazzi shotguns only to discover that their grey market wares were off-the-rack grey market guns imported from Italy, and as such would not be fitted to their new owners. Of course, as even the off-the-rack Perazzis sold by grey market importers are still custom made to a set of measurements in exactly the same fashion as a custom gun would be, there was no value to be found in purchasing such a gun versus having one made to your specifications. In fact, the retailer's off-the-rack offerings were actually more expensive than purchasing our custom-made Perazzi test gun directly from Perazzi Canada.

## So, what's the attraction of the grey market?

Well, there are a couple instances in which the grey market can prove quite useful to the would-be gun owner. The first and foremost is obviously for those that are looking for something that simply can't be found through a licensed distributor. From historic flintlocks to thoroughly modern tactical arms from niche manufacturers, there are far more firearms floating around the world without a licensed distributor network than there are with. And when you start to consider that nearly everything that you can possibly stick to a gun is similarly controlled, from fore-ends to stock sets to sights, the grey mar-

ket can rapidly begin to look like the go-to resource for those with a taste for the exclusive.

And then, of course, there is the price.

The export and import of firearms, en masse from the American market, requires a downright stupefying amount of paperwork from both parties involved. As such, manufacturers often require significant monetary commitments from would-be Canadian distributors in order to ensure their investment in procuring an export license remains a worthwhile endeavour. This often comes in the form of notoriously expensive minimum orders that frequently run into the hundreds of thousands of dollars. For Canadian distributors serving a relatively low-volume market, that often represents a significant amount of capital that earns no return on their investment until it's sold, and

can actually result in losing money if the cross-border currency exchange drops. Add in the relatively low profit margin on firearms, and it's not difficult to see how some guns can be cheaper on the grey market.

## So what do I need to look out for?

Well, first and foremost, there's again the price; while perusing the envious prices listed on websites like CDNN and Gunbroker might have you thinking that the grey market might be the best way to fill up a gun safe, it's important to consider that the grey market comes with its own fees. Oftentimes there are import fees that can run anywhere from \$100 to \$250 per firearm, as well as sales tax and up to a 7% duty. Add in the shipping cost, and more often than not that cheap US gun that'd take three weeks or more to arrive ends up costing as



Although American International Traffic in Arms Regulations, or ITAR, controls may prohibit most tactical accessories from being leaving US soil without an export license, some items, such as this quite tactical-looking Ultimak railed foreend for an M14s/M1A isn't formally classified as a gun part, and as such, can be as easily exported as would be a pair of pants.

much (or more) than its Canadian counterpart sitting under glass at the local shop.

Then there's the issue of legitimate legality. Although still infrequent, the lure of a quick buck has taken numerous grey market imports to the brink of legality, both in the United States and Canada. In some cases, a handful of firearms can be modified in the United States for export to Canada. The nature of the modifications can be such that they break US export and firearms laws in order to make them appear legal for export, only to find that those same modifications bring them under scrutiny by Canadian officials. And in this country, mere scrutiny gives way to seizures far too readily to make such a purchase a risk-free proposition.

And it's not a matter that's specific to firearms alone. With everything from

## sories all requiring complex export permits and import paperwork, it's entirely possible to stumble across products in the Canadian marketof the United States in either a car can be a problem should that same ing optic on a trip south of the borwarranty issues, too.

## So, are they worth it?

The world is not a black and white place, and so the answer to such a question as "are grey market guns really worth it" is both yes, and no.

## Why can't I just buy an American gun, eh?

So, just why is it that we Canadians, longtime allies to the United States, have such difficulty procuring USmade firearms and firearm accessories? The answer; ITAR. Standing for the International Traffic in Arms Regulations, ITAR was created in the midst of the Cold War (1976, specifically) in an effort to prevent the communist enemies of America from gaining access to American-made defense hardware. As a partner to the United States continental defense strategy at the time, Canada found themselves exempted from the ITAR regulations as a result of 1963 Defense Development Sharing Arrangement with the U.S. Government, and enjoyed almost unrestricted trade across the border of everything from fighter jets to .22LR ammunition.

Interestingly, although ITAR is the prevailing legislation controlling most firearms exports, the export and im-However, as the 21st century approached, and global allegiances grew ever more fragmented, concerns arose port of sporting shotguns (determined to be any shotover Canadian dual-citizens and landed third-party gun with a barrel length greater than 18") and all their nationals having too much access to American defense associated accessories and ammunition are controlled technology as a result of our ITAR exemption. Subseby the US Department of Commerce's Bureau of Inquently, Canada's ITAR exemption was rescinded in dustry and Security. Although somewhat less stringent 1999. But, two years later after Canada had updated it's than ITAR's restrictions, the controls placed on sporting own export regulations, a new exemption was issued shotguns and their associated parts and ammunition that allowed Canadian defense contractors to once still require that export licenses be obtained by anyone again work with their US counterparts, but did not inlooking to export them from the US.

rifle scopes to tactical shotgun accesplace that were simply smuggled out trunk or a parcel package. And again, although this might not be a problem for the fellow that's looking for a better deal on his next hunting optic, it fellow ever desire to take that huntder... or rather, if he ever wanted to bring his optic back from said hunting trip. And again, there can be plenty of

If you're on the hunt for that used Heckler and Koch handgun that's made of pure unobtanium, or a Spanish Civil War Mauser, then you're probably well served by the various import services found online. Conversely, if you're trying to decide between a brand new Sig or Smith, then yes, you probably want to make sure that you're getting the real deal from a licensed distributor or retailer. Because be it for after-sale service or simply because it wasn't any cheaper from the US, every item that's bought through a licensed distributor serves as an investment in the Canadian firearms industry. Those dollars prove to American manufacturers that the Canadian market wants their products, and it's the only way to ensure that they'll continue to invest in those all-important export permits. And hey, when was the last time you took a trip to the local gun shop and didn't find something else you wanted, too?

clude the previous exemption's provisions that allowed for the cross-border trade of small arms and ammunition.

Although some ground has been gained since, the cold reality is that almost without exception, the export of anything bearing a NATO marking of any kind is strictly prohibited. That means anything marked in the popular calibers of 7.62 NATO or 5.56 NATO have been unavailable, while anything with a NATO stocking number is strictly controlled. Everything else, from optics to muzzle brakes, requires special dispensation in the forms of licenses and exemptions from the State Department in order to get exported.



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# Nuclear apocalypse got you down? Evil invasion cramping your style? Zombies got a taste for your face? BROBLENSOLVED

•he first time you hold it, it comes as a surprise; the lightweight nature of the thing being quite unexpected for some reason. Perhaps it's the imposing steel receiver cover, or perhaps it's the preconceived notion that such a small package capable of such big things must be dense and heavy, but whatever its cause, the effect is driven home each and every time its thick recoil pad is brought up to meet your shoulder: this is one weird shotgun. But it just so happens that the Kel-Tec KSG is one weird shotgun that people just can't seem to get enough of ... literally. With demand for the \$990 shotgun easily outstripping supply, and used examples demanding prices many times that of its MSRP, it is a gun that Canadians really, really seem to want.

And they've been wanting it for a while now. Having debuted at SHOT Show 2010 and undergone possibly the most public development program a firearm's ever endured, the KSG has had shooters salivating for literally years. And once the novelty of holding such a desirable shotgun had worn off, and its various features and protuberances had been sufficiently molested, the gun's lengthy design and production phase became instantly understandable. Combining the size advantage of a bullpup design with not one, but two magazine tubes, and then having the whole shebang feed and eject out of the same hole in the shotgun's underside in the name of ambidexterity must have sounded like mission impossible to the KSG's designers, initially.

But they've accomplished the impossible, and the resulting firearm is something akin to a Browning BPS, with the trigger assembly moved ahead of the loading/ejection port and a second magazine tube stuck on for good measure. Even the skeletal bolt, with its bottom-hung extractor and exposed firing pin, appears to be a marriage of sorts between the design of the Mossberg 590A1's bolt and that of the BPS. But if some of the KSG's design borrows from the past, the KSG's dual magazine tubes required an innovative solution, and for that Kel-Tec's used a pair of fingers not totally dissimilar from those found within the BPS or an Ithaca. After the fired round has been ejected out of the gun and the pump has reached the rear of its stroke, these fingers hinge inward from of the receiver walls and form a sort of feed ramp for the next round, which is carried upward and towards the chamber by a combination of the fingers' rising action and the bolt's forward movement. Of course, they are quite a bit longer

than the fingers found in either a Browning or an Ithaca, as they need to corral a round that may be feeding from either of the offset magazine tubes, but they're quite robust and are obviously well protected. Furthermore, they're sprung rather than stiffly mounted, which allows them to be worked independently of the action in order to clear a jam or feed problem. The nice side effect of any gun using such a feeding mechanism, as Browning BPS or Ithaca owners can tell you, is that its lack of forceful movement (such as an 870's feed ramp toggling upward to lift the shell onto the bore's axis) makes for one slick-as-snot action.

This being a Kel Tec product, the KSG is of course not only unique in its design, but also in its choice of materials; although polymer may be the accepted norm for handguns and even some rifles, it's still far from common in the shotgun market. And with the KSG, there's more of it than you think. Using polymer extensively to form the pump handle, trigger assembly, pistol grip, action release, and stock (80% of which resides inside the stamped steel receiver and supports the bolt carrier and action), the KSG's light weight is a direct result of paring down the steel usage to the minimum required, such as the barrels, magazine tubes, receiver housing and various internal parts like action bars and trigger mechanism components.

This results in a gun that's surprisingly light, be it on the end of a sling or shouldered. Furthermore, it gives the gun a very rear-heavy balance, with the bolt, chamber, and receiver all residing well aft of the pistol grip. Even fully loaded with fourteen rounds, it doesn't even begin to feel muzzle-heavy, which in traditional shotgun terms makes it extremely quick handling. Having had the occasion to test the gun in possibly its least natural environ, a trap range, it swung onto even fast moving clays





with such veracity that a steady hand was required to avoid overshooting the target. Like all bullpup firearms, the trigger acts upon a series of rods and linkages to trip the hammer, which culminates in a bit of a numb trigger, but seeing as it's a shotgun intended to be shot at moving and nearby targets rather than at long yardages, it poses no real detriment to the gun's usage. Breaking about as many clays as one would expect an 18.5" open-choked barrel to, the KSG threw a good, uniform pattern, and has a solid reputation for slinging slugs in a similarly predictable and accurate fashion. For those hop-

ing to use the gun for either clay or feathered targets, rather than bears, zombies, and other carnivores that show no deference for mankind's position atop the food chain, Kel-Tec is currently testing out a choke adapter that will thread on to the muzzle in place of the lock nut that currently fixes the sling/magazine/rail mount and will allow the KSG to be fitted with all manner of chokes for bird hunting and clay shooting. And should that product make the move from prototype to production, Kel-Tec's Canadian distributor assures us that it will also be made available to Canadian KSG owners as well.

However, it's not perfect: While the bullpup layout may pay dividends in regards to both the KSG's envious weight and handling characteristics, it does make certain tasks more difficult. For example, plugging rounds into the KSG is nowhere near as easy as it is on a conventional shotgun. First off, the awkward location of the loading port demands incredible/superhuman dexterity to load the gun while shouldered, and the complex internal structure through which the shells must be fed means rounds will catch on all manner of devices before feeding into the magazines properly. Instead, it's much easier to simply

turn the gun over and watch what you're doing, but that makes it quite a bit slower than loading a shouldered gun. Inducing further head scratching was the magazine selector lever. Although quite prominent and easily manipulated, the one on our test gun could not simply be flipped from one tube to another during loading, as it butted up against the rim of a the round in the exposed tube. And when the exposed round's hull is comprised of sticky aluminized steel, this meant that sliding the selector over a fully loaded tube to begin loading the second tube required the use of one thumb to depress the rounds in the loaded magazine tube while sliding the selector lever over atop the hull inside.

And once it's fully loaded, there can be no denying that the KSG's got just a wee bit more going on internally than other pump action shotguns, which conspired against our test gun as it proved quite unwilling to reliably cycle. Possibly the combination of a chamber in need of polishing and a badly machined extractor, fired rounds remained resolutely in the chamber the majority of the time, with the action typically locking up after firing only to move rearward with some heavy handed persuasion. Unfortunately, most of the time that persuasion still wasn't enough to coax the fired hull out of the chamber, as the beefy looking extractor's grip on the hull was was bested by that of the chamber's. However, it still proved quite capable of freeing the next round from a magazine tube, so there were a few situations in which the KSG ended up with a fired round stuck in the chamber and a fresh round rattling around in the receiver behind it. Eventually, with a bit of practice, these jams were quite easy to clear, and turning the gun sideways while reefing on the pump seemed to put an end to the extractor's unwillingness to pull fired hulls from the chamber. However, even after sampling a variety of loads, it





remained a case of forcing the action to cycle, rather than working it. However, when it did work, it was quite impressive. With little recoil, and possibly the single greatest action release switch ever concocted by man, there was certainly no denying the KSG's a gun with potential.

But, even with the unfortunate reliability record Calibre's test KSG produced during our admittedly short tenure with it, it would be foolish to write the KSG off as an unworthy product. Because the fact of the matter is, although combining Kel-Tec's favoured polymer construction with such an innovative design as the KSG may have reduced the margin of error for both the gun's manufacturer and its operators, the design shows a huge amount of promise and Kel-Tec's already proven their commitment to seeing the KSG through with such on-the-fly modifications as beefing up the pump handle rail so as to provide a sturdier mount for vertical grips and the like. Furthermore, such issues as we experienced are reportedly few and far between, with the unanimous verdict being that any and all Kel-Tec products afflicted with any issues are being readily and effectively dealt with by the warranty centres and distributors.

And while such issues as we encountered can be easily remedied to bring the KSG on par with its competition reliability-wise, the benefits of its unique packaging simply cannot be matched by any of its conventional contemporaries. Its quick-handling characteristics, incredibly compact size, and high-capacity magazines are literal game-changers, and they're precisely the same strengths that have seen numerous other guns rise from issue-besodden infancies to become legitimate world standards. In fact, it was just a few decades ago that another black "plastic fanstatic" was earning much of the same praise and criticism, and look at where the AR15's ended up...

# EXPLAINED DOUBLE-ACTION? FIFE ACTIONP

If you've spent much time around the local gun range, chances are good that the terms "double-action" and "singleaction" will not be new to you. In fact, even if you haven't spent much time at the range (yet), and have just received your RPAL, you probably remember the instructor or examiner asking you to demonstrate how to safely handle either a single-action or double-action pistol. But although you might have known how to safely unload and open either, there are guite a few folks out there that haven't guite wrapped their heads around just what those particular terms refer to, and what they actually mean. If that sounds like you, read on... we won't judge.

STRIKER-F FAMINIER-FIRED? REVOIVER AUT

t's important to recognize that there is a certain hierarchy of pistol classification, and the broadest rung of that hierarchy is the definition of whether or not the pistol in question is a revolver or a semi-automatic. Now, it's a step that's certainly obvious to many, but it leads to the first stumbling block that some folks face when it comes to understanding the difference between single and double action pistols.

STAINLESS

Obviously, a revolver is pretty easy to spot. There'll be the usual arrangement of a barrel and a grip, and in between the two will be a nice round magazine, which in the case of a revolver, is referred to as simply a cylinder. A semi-automatic, by comparison, looks thoroughly modern, and is conspicuously flat. Instead of a cylinder sitting betwixt the grip and the barrel, the entire frame of the pistol will often be uninterrupted, with the barrel itself typically residing underneath a slide of some sort and only visible at the muzzle and through the hole in the slide that serves as the pistol's ejection port. The magazine, always removable, is typically located inside the grip itself and is released via either a button on the grip or a lever on the bottom of the trigger guard.

Now it's time to discuss what singleand double-action denotes. Although it might seem complicated, at their most basic, these terms describe how many actions the trigger can accomplish on its own. In the case of a single-action pistol, the trigger can do just one thing: release the hammer. This means, of course, that since squeezing the trigger can only release the hammer, the hammer must first be cocked if the gun is to fire. Otherwise, the trigger does nothing. Thus the single-action pistol is a far simpler design to engineer and manufacture and subse-

Robert Adam's cap-and-ball pistol of 1851 was the world's first double-action pistol, and could not be manually cocked and operated as a single-action.



quently categorizes the majority of pistol designs used into the 19th century.

Which brings us to the double-action. Developed in 1851 by a British arms designer named Robert Adams, who was working for London-based gunmaker George & John Deane at the time, the first double action revolver debuted as a cap-and-ball (denoting the use of percussion caps to ignite the powder charge and fire a lead ball rather than a bullet), five-shot revolver chambered in .436 Dean and Adams. Differing dramatically from any other handgun available at the time, the Dean and Adams revolver had no hammer spur with which the gun could be cocked, and in fact could not be cocked manually before firing. Instead, as the trigger was pulled, an internal mechanism cocked the hammer rearward and released it, firing the gun. Since the trigger now completed both the task of cocking, and releasing the hammer, the term double-action was applied. Four years later, a Lieutenant Frederick E.B. Beaumont would improve the design by allowing the gun to be cocked manually before firing, meaning it could be operated as either a single- or double-action pistol. This design would become the basis for nearly every double-action revolver to come.

Of course, it's easy enough to understand how the terms single-action and double-action are applied to revolvers, as the mechanism is both visibly exposed and manually operated. But how does all this work in relation to the semi-automatic, or to use the older colloquialism, "automatic" pistol? Well, in precisely the same way. On a single-action semiautomatic like Colt's Model 1911, the trigger is still only capable of one thing; releasing the hammer. So, for that first shot, the hammer must be manually set by either thumbing it back as one would on a revolver, or cycling the slide, which in turn

rides over the hammer and cocks it. However, after that first shot, the difference between a single-action revolver and a single-action semiautomatic becomes apparent, as the slide's rearward movement serves to cock the hammer for each subsequent shot, rather than on a revolver where it must be manually thumbed back every time.

Just as Robert Adams realized with his revolver, it didn't take gunmakers long to come to the conclusion that there was a market for a semiautomatic handgun that did away with the single-action's requirement of being cocked initially. Now typically referred to as a double-action only pistol, or DAO, these semi-automatic pistols operate in a manner that's utterly identical to that of their revolver-shaped brethren: the trigger both cocks, and releases the hammer, firing a round each time. However, like Adam's first revolver, the action does not allow the hammer to be cocked either manually or by the slide, meaning every pull of the trigger will both cock, and release the hammer.

But, if you follow the logical train of thought that has led to these various guns' development, you now might be asking yourself "why hasn't someone made a gun that doesn't need to

be cocked the first time. but uses the slide's cycling to cock it for every subsequent shot?" Well, they have, and this is where the business of defining a gun as a double- or singleaction gets murky. Known as doubleaction/single-action, or more commonly as DA/SA, these guns combine the double-action semi-automatic's operation with that

of the single-action to produce a gun that, from an uncocked condition, can cock the hammer and release it with a single pull of the trigger, but is also cocked each time the slide cycles rearward. With the understanding that this results in a gun in which the first shot can be fired in double-action operation, and each subsequent shot is fired in single-action, these guns' DA/SA monikers actually begin to make sense.

All this discussion of single-action and double-action pistols ignores one very large, and often polymer-based elephant in the room: the strikerfired pistol. The newest variation on the handgun theme, the striker-fired pistol (most famously and commonly represented by Glock hand-

guns) trades a traditional hammer and firing pin assembly for a spring-loaded firing pin, or striker, that is released by the trigger and driven into the primer by a spring. By comparison, hammer-fired guns use firing pins that are either free floating or held to the rear (away from the chamber) by a light spring, and fired by the force of the hammer literally hammering the firing pin into the primer. However, the differences don't end there.

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While a hammer-fired handgun can rely on either the trigger or the slide to cock the action, a striker-fired gun requires the use of both. Cycling the slide to load the first round into the chamber sets the striker to what essentially amounts to a half-cock position. From this position, the squeezing of the trigger engages the striker and moves it out of this half-cocked position towards the rear of the gun, further compressing its spring and bringing the gun to full cock. At this point the trigger breaks, and releases the striker, which is then driven forward, igniting the primer and launching a round downrange. As this happens, the slide unlocks, travels to the rear, and sets the striker to the aforementioned guasi-half-cocked

> The logic behind this is that striker-fired guns benefit from the traditional double-action's ability to fire without needing to be cocked, but do so without the encumbrance of the heavy and long trigger pull often required to cock a hammer

fired gun. Additionally, they are reported to be safer, as the design of most striker fired guns is such that a striker released from the half-cock position will not have enough energy to ignite a primer, just as the trigger alone will not be capable of bringing the striker from zero to fully cocked. But, since they rely on both the trigger and slide to each account for half of the firing mechanism, they cannot be classified as single- or doubleaction pistols.

Of course, deciding which one of these various actions is best is more a matter of examining your own personal needs, and cannot be done without the context of usage. DA/SA guns, for example, are often referred to as safer than their SA counterparts as they can be left uncocked, but are still ready to fire at a moment's notice. However, the flip side is that the trigger feels and responds quite differently after that first shot on a DA/SA, as the single-action trigger is typically far lighter and shorter. This has all sorts of ramifications for competitive shooters here in Canada, but is really much more important to law enforcement officers and Americans who are considering a handgun for self-defence, hence the frequency with which the term DA/SA comes up in American handgun discussions. At the other end of the spectrum, people who love the meticulous and fine nature of a revolver might enjoy the manipulation of a single-ac-

> tion revolver, from the ritual involved in loading it

in loading it to the motion of cocking it before each firing. In either case though, at least now you'll know what they're talking about when the inevitable argument between DA and SA starts up!



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# FINLAND'S WINTER WAR VETERAN THAT YOU CAN OWN

Throughout history, the submachine gun has always struggled to maintain the level of respect its longer and shorter siblings have earned. Granted, certain submachine guns such as the M1 Thompson and Israeli-made Uzi have certainly left their mark upon the annals of armed conflict, but by and large it has been the pistols, rifles, and machine guns that are best remembered. Unless of course you happen to hail from Finland. Because it was during Finland's oft-forgotten Winter War that another submachine gun distinguished itself as a surprising and effective weapon: the Suomi KP/-31.





its robust nature allowed it to continue to serve alongside its cheaper alternative, the M/44 (right).

First concocted in the mind of Finnish designer Aimo Lahti, the KP/-31 has its roots all the way back in 1922, when Lahti and one Lieutenant Y. Koskinen developed an early prototype of a submachine gun incorporating a machine-gun-inspired quickdisconnecting barrel and a nearly hermetically sealed receiver. Known simply as the M-22, the prototype laid the foundation for what Lahti hoped would be an "everlasting" firearm, with the most crucial parts being incredibly rugged and the remainder easily manufactured and replaced. However, it wasn't without its drawbacks, and the airtight M-22 drew criticism for possessing too high of a fully automatic fire rate, while the .32 A.C.P. cartridge it was chambered in was deemed too weak

for military use. Subsequently, Lahti revisited the design, chambering his second prototype in 7.65x21mm Parabellum and implementing a screw-adjusted system of pneumatic valves to create a vacuum behind the tight-fitting bolt as the gun cycled, hereby slowing the fire rate.

That screw-adjustable, vacuumoperated fire rate adjustment system allowed Lahti to easily tune the gun's recoil characteristics so as to enable it to reliably fire the larger and longer 7.63mm Mauser or 9x25mm Mauser rounds preferred by export markets. So, having finally settled on a selection of chamberings (the aforementioned Mauser cartridges as well as 7.65x21mm Parabellum for domestic guns), Lahti was able to tune the fire

The KP/-26

rate reducer to between 750 and 900 rounds per minute regardless of calibre. This gun, known as the KP/-26, may have been considered a finished product by the few Finnish Army, Frontier Guards and Civil Guard troops to whom it was issued, but Lahti himself wasn't yet finished with the design.

The first issue Lahti looked to address was one of reliability: Since it was chambered in rounds only slightly shorter than the bolt's total travel under recoil, the K/P-26 operated on the thin edge of the proverbial wedge, requiring absolutely unimpeded rearward movement of the action to extract, eject, and chamber rounds reliably. The solution to this was the adoption of the shorter 9x19mm Parabellum cartridge that was gaining popularity with militaries around the world. Delivering more power in a smaller package, the 9mm cartridge's shorter case ensured the gun would be more reliable as well, but also required Lahti redesign the KP/-26's magazine. Initially devised to hold 36

rounds of bottlenecked cartridges, the KP/-26's magazine's design was a heavily curved box that curled around nearly 180 degrees, and fitted into a narrow magazine well inletted into the wooden stock. However, recognizing the potential of pairing his gun's quick-disconnect barrel with a properly large-capacity magazine, Lahti took a page from the Thompson M1A1's book and redesigned his submachine gun to include the same "open jaw" type of magazine well as used on the infamous Tommy Gun. This in turn allowed the use of vastly wider magazines, and Lahti used this advantage to devise various magazines capable of housing anywhere from 20 to 71 of the straight-walled 9mm cartridges. Of special note were his 50-round quad-column "coffin" type box magazines that were among the first of their type to work reliably, as well as the equally reliable 40- and 71-round drum magazines that would prove to become the bane of the belligerent Russian force's existence. Finally, with the addition of a beveled barrel jacket to decrease muzzle rise

and the inclusion of a barrel jacketmounted bayonet lug, the KP/-31 was finally born.

Used effectively against the advancing Russian forces during the Winter War, the one major feature that differentiated the Suomi from its contemporaries would also prove to be the most important one: that quick disconnecting barrel. A task that involves just three steps (rotating the barrel jacket key down, removing the barrel jacket, and then pulling the barrel free), it was a feature that was much appreciated by Finnish soldiers that used their KP/-31s and those high capacity magazines to fire thousands of rounds at advancing Russians, with some even reporting such frequent and hard use that both the barrel and barrel jacket were glowing cherry red before being replaced. It was then that the Finn's beloved Pukka knives and thick mittens would come in handy to lever off the hot shroud and pull out the overheated barrel. But such hard use didn't preclude accuracy, as each replacement



barrel was marked with a "sightingin stamp" at the completion of its manufacture, and was guaranteed to deliver rounds within one-inch of other barrels similarly marked. And with the gun's manufacturer rejecting any barrel that produced a grouping larger than just a few inches, they were all surprisingly accurate. This combination allowed troops to replace barrels on the fly without changing their point of aim while still maintaining excellent accuracy.

Initially developed in an age when combat arms were milled from solid chunks of steel and expected to last generations, the KP/-31's high quality of manufacture would ultimately prove to be the architect of its own demise. In the face of a myriad of cheaply manufactured, stamped steel submachine guns, the Suomi, which literally relied on its excellent bolt-toreceiver fit in order to function, was simply too costly to manufacture. However, Lahti's desire to engineer an "everlasting" gun wasn't for naught, as Finnish forces continued



to use the KP/-31 in active duty well into the 1990s, even though production of the hefty SMG ceased decades earlier, in 1944.

Of course, the guns fired in anger during the bitterly cold winter of 1939 aren't exactly the same ones you can buy here in Canada. Made from parts kits featuring entirely new receivers, the TNW M31 may share its proportions, calibre, and overall design with Lahti's fully automatic submachine gun, but in operation, there are guite a few distinctions. First off, in order to pass as a semiautomatic only firearm and not a converted automatic, the TNW receivers are smaller internally than the original, which prevents the fitment of a fully-automatic bolt assembly. Next, the appropriately undersized bolt is fitted with a hammer-fired firing pin,

as opposed to the original's fixed firing pin. Interestingly, early models of TNW's M31 featured a strikerfired bolt assembly, but the design was changed over to a hammer-fired setup for reliability. However, in both cases, the TNW M31 fires from a closed bolt, rather than an open bolt as on the original KP/-31. And then of course the barrel was lengthened to 18.6" in order to meet both US and Canadian legal standards... and yes, that makes it non-restricted.

But that's enough of the flim-flam about its design; how does TNW's take on the Suomi feel? Well, in a word, heavy. According to TNW's specifications, it weighs in at roughly 10-1/2 pounds, but truth be told, it feels heavier. And with the longer 18.6" barrel, shroud, and entirely milled tubular receiver, most of the weight sits towards the muzzle of the rifle, which makes holding it in the offhand position a bit tiresome.

And then there's the manufacturing process. With the original KP/-31 having been being discontinued as a result of its exorbitantly high cost of manufacture, it should come as no surprise that its quick-release barrel design is one that demands incredibly high tolerances and finishing in order to deliver the accuracy it was renowned for... which means the discernible wiggle that was evident between the receiver and the barrel of our test gun is probably something the Finns wouldn't have put up with. But, although disconcerting, any play in the M31's barrel to receiver fit is something that's easily rectified with a few shims, which can be either made or purchased online for

the express purpose of tightening the joint between the barrel, shroud, and receiver. And of course, since removing the barrel and shroud can be accomplished in mere seconds, installing them is dead easy.

But the tuning didn't stop there. With the barrel and shroud now firmly affixed to the receiver, and the barrelshroud take-down lever tightened up (the lever tension is adjustable via a screw on the receiver), it was discovered that the magazine well was slightly too tight to allow magazines to be inserted with anything less than a sledgehammer to drive them home. This is a result of the Suomi's manufacturing process, which involves the welding of two pieces to make the receiver; the first piece constituting everything from the bolt face rearward, and the second piece

comprising everything from the bolt face forward. Since the magazine well resides smack dab in between these pieces, a slightly too-tight tolerance in the welding process resulted in a magazine well that was too small fore and aft to allow the surplus magazine to be inserted and removed. Some time with a file and the magazine's front and rear guide plates solved the issue.

Speaking of which, it's worth noting that the magazines that come with the Suomi are absolutely fantastic. Being surplus pieces, they're indicative of Lahti's "everlasting" mentality, and are both robust and reliable. Made of thick stamped steel and assembled in such a manner that they can be completely disassembled with the same ease as the Suomi's barrel, they're easy to load, feed perfectly,

and can be popped apart and cleaned in no time. The magazine follower spring is used to maintain pressure on a button that in turn locates the floorplate in such a position that it can't accidentally fall off, but simply pushing the button upward with a pen (or the nose of a 9mm round) and sliding the floorplate forward and backward works it clear of its retaining tabs, and allows the floorplate, spring, and follower to be removed and cleaned. Maybe it's a bit geeky to appreciate such minutia, but if you're a neat freak, it's nice to have a magazine that doesn't require any prying or forceful pushing to disassemble.

So, with the gun cleaned, lubed, and tuned, and a gratuitiously large magazine holding a whopping five rounds of CCI Blazer 124-ground FMJ 9mm ammunition, it was time



to pull the trigger. Which did nothing. As it turns out, the Suomi's sadly riveted magazine is limited to *just* five rounds. rather than the five and a half that most manufacturers allow for. This in turn prevents the magazine from properly seating when it's completely loaded, and prevents the bolt from stripping rounds out of it. The permanent solution, which is a task that technically should be left to a gunsmith as it requires momentarily possessing an un-pinned and loaded magazine, is to remove the rivet, and load five rounds. Then, insert the magazine into the Suomi with the bolt closed, and use a Sharpie to place a mark on the follower through the hole formerly occupied by the rivet. Then, disassemble the maga-

zine and use a Dremel or similar tool to grind a slot into the follower to allow it to slide down around the rivet. Finally, replace the tiny rivet, and put it back together. Once it's back together again, it will remain a totally legal device in the eyes of law, but will also be capable of seating under a closed bolt with five rounds inside. And since the Suomi has no bolt holdopen, that is somewhat important. However, having neither a Dremel, a Sharpie, or the inclination to modify a magazine in the middle of a gun range, it was much easier to simply load five rounds, stick the magazine halfway in, open the bolt and tap the bottom of the magazine on the shooting bench to properly seat it. Conversely, loading four rounds would

work too, but who wants even less ammo in a gun that's as fun to shoot as this?

Because if there's one thing the Suomi is, it's fun. The heavy barrel and shroud soak up nearly all the recoil of the 9mm round, and completely negate any sort of muzzle rise, resulting in a gun that shoots with no greater impact than a .22. Even the report, due to the long barrel, is little more than a pop. And since a few hundred rounds of various cheap 9mm ammunition varieties only gave way to one hiccup (an American Eagle round that got hung up on its way into the chamber), it's safe to say that they're pretty reliable too boot, which isn't all that surprising when

you consider that it's probably the most overbuilt gun on earth. And hey, should it ever hang up, it'd still make one hell of a club.

Accuracy is about what you'd expect from such a gun; printing groups at 100 yards that hovered around 6 inches, and roughly double that without. But it's not the sort of gun that you'd spend much time shooting at paper. Simply put, the front sight's quite large for target shooting, and the trigger, as it's shipped, felt as if it was heavier than the gun itself and about as smooth.

But, although those detriments might conspire against its attempts on paper, the combination of the gun's friendly nature, utter reliability, and cheap appetite make it a great plinking gun. No more offensive to the shoulder than a 10/22, but shooting a round that'll actually make visible holes in gourds and beer cans, it's a ton of fun and just begs to be shot. In fact, it's fun enough that even with the cheap cost of 9mm ammunition, it's probably a boon to ye olde bank account that the magazine is limited to just five, even if it is a particularly hard punch in the gut to see a 36 round magazine so limited!

Initially, when the M31 arrived in the office, things didn't bode well for it. Between the ridiculous weight of the thing and the various tweaks it initially required, hopes were not high

for its performance on the range. However, after dragging it, and a few other old favourites down to the local gun club, the Suomi kept finding itself being brought out of the rack over those old favourites. Fun as hell, cheap, and reliable, it's just a great little guilt-free gun that's as easy and fun for a new shooter as it is an experienced shot. Combine all that with the historical importance of the KP/-31, as well as its non-restricted status, and it makes for a downright enjoyable gun for those that are looking for something unique to go plinking with. And then there's the price: with most TNW dealers offering M31s for under \$700, it definitely tips the scales as a lot of gun for the money, both literally and figuratively!

# SR-25 ECC

SR25 600 - The SR25 14" Schenzed Context Carbine is one of the tagetip weapon for Gright's Armsment Company. The 200 System Natures at 6" SR Catellifed barrel, precision shromed to add longevity. Note the s167 SR Catellifed barrel, precision thromad to add begreits, resistance to fouling and contention and a 7.620000 Plant Se powers. This resistant system content standard with Englists 44 office BUIS, Ambidiantous Controls, 3-stage Match Trigger, and Carbon Cator Roti Carrier. The SCC is also equipped with a Ball Mill Lightaned Ranel to effectively dissipate heat and reduce you, while the frequen-Reduction System assists in reducing perdeved recoil and increases control bibling. This 308 Carbon elaciting perdeved recoil and increases control bibling. This 308 Carbon elacities the advantage of a 1910 Plastin w Rail, set the control of a simmer, more control handfall. Recursed power and elegant exproprints control netto create an efficient, and intelligently designed weapon plastom.

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# **Optic Overview**

## The Bushnell SMRS 1-6.5x24mm

In 1947, a man by the name of David P. Bushnell found himself in Shanghai on an extended honeymoon with his second wife when he stumbled across a pair of Japanesemade binoculars being peddled by a local merchant. Almost forty years later, the company that bears his name is now one the largest imaging and optics manufacturers in the world, and is responsible for thousands of product lines.

And the Elite Tactical SMRS is one of their latest.

Standing for Short to Mid-range Riflescope, the SMRS lineup includes four distinct models, all of which bear the same 30mm tube construction and 1-6.5x24mm lens arrangement. Bushnell's first offering in the short-range tactical market, the SMRS' spec sheet reads like that of many of its competitors' in that it too is made of a forged aluminium tube filled with Argon, features fully multicoated optics, and boasts a shock-proof, water-proof and fog-proof design. However, like many of Bushnell's premium scopes, the SMRS lineup also features Bushnell's familiar water-repelling RainGuard HD coating; a feature that goes unmatched on either Leupold or Vortex's similiar offerings.

But the differences don't stop there. Recognizing that competitive shooters don't all want or need the same reticle nor shoot the same cartridge, Bushnell's fitted the SMRS with two available aiming arrangements. The BTR-1 reticle is an illuminated, ballistically calibrated reticle that is optimized for use with 5.56/.223 caliber rounds. This bullet drop compensating (BDC) reticle provides accurate ranging and aiming to 600 meters. Coversely, if a .223 BDC reticle isn't your thing, there is the BTR-2 reticle; an illu-

minated mil-hash setup that allows for ranging, holdover and windage adjustments on the fly. But the big news is that both the BTR-1 and BTR-2 illuminated reticles are available in first or second focal plane.

What does that mean, precisely? Well, although it might sound complex, the reality of it is blessedly simple. For optics with the reticle in the first focal plane, adjustments to the magnification also act upon the reticle, causing both the image in the scope and the reticle to grow in relation to one another. As a result, any bullet-drop compensating or mil-dot reticle system rendered in the first focal plane will remain true at any magnification. This in turn can make it much easier to get an accurate holdover on a target, and can also allow for accurate reticle-assisted ranging of a target at any magnification setting. And while we're on the subject of quick target acquisition, it's worth noting that unlike many of its low powered variable-magnification brethren, the Bushnell SMRS actually powers down to a true 1x magnification (or lack thereof, rather) at its lowest setting, which makes it ideal for both-eyes-open shooting in much the same manner as an Eotech or Aimpoint.

Conversely, second focal plane optics maintain the same size reticle regardless of magnification setting, which means that BDC holdover points, mil-dots, and ranging marks will only be accurate at one magnification setting. However, the second focal plane isn't without its own benefits. As the reticle does not grow larger at higher magnification settings, second focal plane optics can allow for slightly more accurate fire at smaller targets, as the reticle posts remain thinner and subsequently obscure less of the target. This makes them a popular choice amongst those that prefer to set their windage and range via target turrets, while the ability to get quick and accurate holdovers makes first focal plane optics a popular choice amongst those looking for faster target acquisition and engagement.

In any case, since the SMRS can be had in either reticle in both first and second focal planes, the SMRS can meet the demands of both the quick competitive shooter as well as the deliberate and accurate modern hunter or target shooter. But, as the first focal plane variant requires a slightly more involved manufacturing process, it carries an American MSRP of \$2,119.95, while the second focal plane versions are given a price tag of \$1,967.95. However, in a move that is sure to surprise many familiar with Canadian optic pricing schemes, both versions can be found at Canadian retailers with price tags starting at just \$1,200 dollars! And since they're all covered by the same limited lifetime warranty that's covered Bushnell products since 1984, their quality is assured as well. Look for a hands-on test in a future issue.



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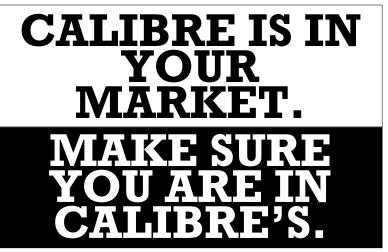
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# Calibre's Calibre

.22 Long Rifle



Utilized in everything from pistols to smoothbore shotguns, the good old .22 LR first saw service in 1887, when the J. Stevens Arms & Tool Company discarded the 29 grain bullet found in a .22 Long and replaced it with the 40 grain projectile found in the now-defunct .22 Extra Long. The subsequent round, called the .22 Long Rifle, maintained the muzzle velocity of the .22 Extra Long with the reduced bulk of the .22 Long, and quickly replaced both its donor cartridges as the rimfire of record.

And although the advent of smokeless powder has since allowed manufacturers to develop all manner of spin-off cartridges pushing projectiles at speeds of over 1,600 feet per second, it's been the standard .22 LR that has remained the most popular. Earning its keep with everyone from small game hunters to Olympic athletes, the standard velocity load of one 40 grain pill propelled at roughly 1,070 feet per second has become the benchmark by which all other rimfire calibres are measured.

Although oftentimes considered a beginner's calibre, or perhaps only useful for training purposes, the venerable and affordable .22 Long Rifle remains the most popular calibre found on planet Earth, with estimates placing the number of .22 LR rifle rounds manufactured per year at somewhere in the neighbourhood of 2.5 billion. Given an average projectile weight of 40 grains, that equates to an impressive one hundred billion grains' worth of lead alone.

A large contributing factor to the standard velocity round's popularity remains its accuracy. Even though the fastest .22 Long Rifle rounds may leave the barrel at supersonic speeds and subsequently maintain a flatter trajectory, they all drop below the speed of sound before traversing 100 yards, and are thus overtaken by their own supersonic shock wave. This creates a degree of instability in the bullet's flight, and opens up groups; something the standard velocity .22 Long Rifle round's subsonic speeds prevent it from being subjected to. As proof of what the standard velocity round is capable of, gold-medal winner Sergei Martynov fired ten rounds of .22 LR at the 50 meter prone target at the London games that resulted in a hole roughly the same size as that left by a single 9mm round. And that group was shot with a 13-year old rifle firing Soviet-era ammunition.

But for the average shooter not yet capable of that degree of surgical precision, the .22 LR's gentle behaviour, low cost, and quiet performance has made it the ultimate training round. As a result of this demand, manufacturers are now offering .22 Long Rifle conversions for many popular centrefire firearms, and buyers can now find everything from purpose-built training AR-15s chambered in .22 LR to M1911 and Glock conversion kits. Reacquainting many with a calibre they'd long since left behind, these kits are helping rimfire calibres enjoy a bit of a resur-

gence, which is an .224 undeniably good thing. After all, an empty soup can on a fence post and a nice little .22 can be just as much fun today as it was 125 years ago.

.224 ->

49



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