

GC Precision Developments' CWS rifle

by Daniel O'Dea



Down on the range, Daniel lines up for some accuracy testing.

Last year, *Australian Shooter* had the chance to review the MSP Series rifle from GC Precision Developments, an ACT-based custom engineering shop bringing the latest in Computer Aided Manufacturing into modern gunsmithing. The rifle was very impressive, incorporating cutting edge technologies such as a carbon fibre wrapped barrel and the best of modern metallurgy and CNC techniques to produce a finely accurate, modern sporting bolt action rifle.

If GC Precision Developments has turned modern gunsmithing into a science, the current pinnacle of this science would have

to be their latest offering for *Australian Shooter* to review, the CWS rifle. As we live in a world where the forces for good more than ever rely on arming our law enforcement and military personnel with the latest technology, companies like GCPD are at the forefront of developing and supplying this market.

In the case of the CWS rifle, CWS is an acronym for Covert Weapons System. Quoting from the firm's literature: "The CWS rifle system answers the needs of the modern tactical unit that requires operational flexibility and discretionary deployment." This rifle has basically been designed to deliver

premium accuracy in a compact package that can be utilised in such roles as counter terrorism.

Today, with terror-related concerns at special events or over visiting dignitaries, agencies are often tasked with providing armed overwatch protection to both the general public and officials. In completing this task, they wish to do so in the most discreet fashion possible so as to not raise any undue concern.

In this review, it must be considered that we do so more to highlight modern firearms technologies which evidently, although quite often developed for military and law

enforcement applications, find their way into modern sporting variants. In the case of the CWS rifle, although it could prove quite practical in many other applications, it would currently be unavailable in several civilian jurisdictions in Australia due to its folding stock. As tested, the overall length would also be a consideration and civilian purchasers would need to specify a longer barrel (a minimum of 22"/56cm) to make it legal. It should be noted that for the purposes of the review I am appropriately licensed as a firearms dealer.

At the heart of the CWS rifle is a Barnard Precision Model SM action with a three-lug bolt head delivering a short 60-degree bolt throw. Manufactured in New Zealand, Barnard Precision has been delivering a world-class product for more than 20 years

with a great reputation in its own right. The action is then fitted to a 16" (406mm) either carbon fibre wrapped or heavy profile stainless steel fluted barrel.

The test rifle, chambered in .308 Winchester, was fitted with the carbon fibre wrapped option weighing a little over 5kg. I covered the Hardy carbon fibre wrapped barrel in my MSP review but to repeat for those unfamiliar with the process, it all starts with a 416R stainless steel blank that is CNC gun drilled, precision reamed, button rifled, stress relieved, hand lapped and CNC contoured. The raw contour leaves the barrel thinned between the Knox form and the muzzle before being laid up with a low resin, high strength, pre-impregnated carbon fibre cloth. The end result is not only a very light barrel but one with properties including



The CWS rifle has a fully ambidextrous safety, operational from within the triggerguard.

dampened harmonics, fast heat dissipation and an extreme level of shot-to-shot consistency, this even from that all-important first cold bore shot.

Of course, the standard 16" (406mm) barrel length lends itself to being suppressed, which naturally is a common requirement when deployed in the designated role. To this end, GCPD has several options available to the appropriately approved agencies. Depending on unit requirements and application, barrel length



The CWS came fitted with GCPD's own tool steel high efficiency muzzle brake.



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GC Precision Developments' CWS rifle

can also be accommodated in 18" (457mm), 20" (508mm), 24" (610mm) or 26" (660mm) variants. Likewise, the barrel can be finished with GCPD's own tool steel high efficiency muzzle brake as an option as fitted on the test rifle.

GCPD's proprietary chassis system is precision machined from 6061-T651 alloy and is hard anodised to a Mil standard of Mil-A-8625, the receiver is 4340 high tensile steel and is black plasma nitrided. Other fittings are manufactured from 6al-4v titanium and Ti/AI PVD nitride coated. The beaver tail fore-end features synthetic grip panels and a full length integrated UIT rail system. A combination of a continuous integrated top rail and KeyMod slots on both left and right sides of the fore-end provide plenty of what they refer to in tactical circles as 'rail-estate', meaning plenty of rail space to hang tactical accessories off such as laser designators, lights and other systems that may be required.

The CWS also features some of the most advanced ergonomics I've seen on a bolt-action rifle. Both safety and magazine controls can be manipulated within the triggerguard, meaning minimal movement when operating these controls. Starting with the safety, it is located just forward of the trigger shoe and rocks forward and aft to engage



Although the CWS rifle wasn't fussy about producing great accuracy across the range of ammunition tested, it still had its favourites.

and disengage with a simple activation of the trigger finger. The safety lever presents as a 'T' bar, making it totally ambidextrous being easily accessible by left- or right-handed operators. Likewise the magazine release has dual operation, a circular, raised, scalloped section of the release bar protrudes through a slotted recess in the front of the

triggerguard and again can be depressed using the trigger finger. Alternately, the release bar extends below the triggerguard behind the magazine, allowing one-handed removal by the offhand as required.

Another key feature is the unique fully adjustable folding buttstock. GCPD claims: "The CWS achieves the ultimate in

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match-grade factory ammunition as well as some handloads constructed using premium components. Groups would be shot off my Caldwell Lead Sled which as usual gave a good solid platform.

A premium grade rifle like the CWS deserves the highest quality optics and GCPD delivered in this area, supplying a German-made MAK Optics MAKpro 5-25x56i HD riflescope. Typical of more renowned German-made optics, the MAKpro left nothing to be desired and presented a perfect accompaniment. GC Precision Developments has partnered alongside Kleinod Pacific Enterprises, the Australian supplier, with MAK products now exclusively being supplied to GCPD.

In function, the .308 Winchester rounds fed from a 10-round Accurate-Mag brand detachable single stack magazine. Like most similar feed designs, best practice was to feed rounds into the chamber utilising the magazine, however single loading could be performed by the introduction of individual rounds into the chamber. The short 60-degree bolt throw performed flawlessly when operated in a swift deliberate fashion, delivering super-fast bolt-action cycling.

When the smoke had cleared on the testing, and not totally undue to both the conditions as well as my shooting, the

individual fit through full buttstock adjustment without tools." Indeed there seems to be every adjustment you could require and, more importantly, the locking mechanism for the stock ensures a 'rock solid' lock up. With typical GCPD attention to detail, hinge wear points are made from 60 (Rockwell C) tool steel and material surface finishes have been

selected to support an extended service life.

Heading to my range for testing I was plagued by bad weather. Located in the higher ranges of central west NSW, I faced a couple of days of blustery winds and rain squalls, not ideal by any circumstance for accuracy testing. Ammo wise I had both an extensive and varied range of premium



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targets at first glance didn't look the prettiest, many showing tight little clusters with an outside flyer blowing some groups out, but the verniers would tell a different story. On measuring all groups, the net averages were quite impressive. Even counting the worst of the groups shot, the five-round average for all ammunition tested was still under 1 MOA (25mm at 90m), three-shot groups halved this number to a tad over half MOA at 0.57" measured centre to centre.

Federal Premium 168gr BTHP Sierra Match King factory ammunition grouped three rounds into 0.25" or quarter MOA and less than calibre. I have no doubt that given better conditions and dare I say a better operator, quarter to half MOA groups could be expected. When you consider the results achieved over so many types of ammunition, the rifle did show tremendous flexibility and didn't seem overly fussy about delivering dependable accuracy from any of the brands tested.

Later, and again being appropriately licensed, I had the chance to fire a few more groups through the CWS fitted with an Australian-made Wedgetail Industries Ninox Suppressor. Contrary to common myth, a suppressor does not 'silence' gunfire, rather it reduces both the muzzle's blast and noise on discharge. Any round fired achieving a velocity greater than 1125fps will still break the sound barrier, creating a sonic boom as it does. As mentioned earlier, the GCPD CWS with its short 16" barrel was designed with suppressor use in mind. The Wedgetail Ninox suppressor claims a reduction of 25-32db (decibel), typically a short barrelled .308 with a muzzle brake can produce in excess of 165db. Anything over 140db is considered a serious risk to your hearing, so the ability to reduce sound below this level is of great benefit.

What I was most interested in was what effect the fitment of the suppressor might



The bolt release located on the rear left side of the action at Daniel's fingertip.

have had on accuracy. I fired a series of three-shot groups using both premium factory ammunition as well as some tailored handloads. Accuracy was unchanged, with groups achieved in the area of 0.25 to 0.50 MOA. What did change was the point of impact, but the deviation was only vertical not horizontal with projectiles fired through the suppressor printing 90-110mm higher, dependent on ammo choice. I didn't have the opportunity to chronograph the loads, but I understand projectiles fired through the suppressor can also produce a higher velocity due to longer virtual barrel length created and increased back pressure, a phenomenon referred to as free bore boost.

Reviewing this rifle presented a unique opportunity to experience a purpose-made precision firearm, engineered and designed for a specialist role. The development cost alone for the project I understand ran over six figures in dollar terms. It's great to know that both the skills and knowledge to bring such a project to the table are alive and well in Australia, with companies such as GC

Precision Developments producing a world-class product.

GC Precision Developments are located in the ACT. To learn more, visit gcpdarms.com or contact info@gcpdarms.com ●

Specifications

Rifle: GC Precision Developments CWS Rifle

Action: Bolt-action (Barnard Precision SM)

Trigger: Single stage adjustable within the triggerguard safety

Calibre: Tested in .308 Winchester (other calibres available)

Capacity: 10-round detachable box magazines

Barrel: 416R stainless steel 16" (406mm) threaded for suppressor or brake

Twist rate: 1:10

Barrel spec: Hardy carbon fibre wrapped

Sights: Integrated rail for optics mounting

Length of pull: Adjustable

Chassis finish: Hard anodised to MIL-A-8625

Parts finish: PVD titanium/aluminium nitride

Weight: 5.085kg (+/- depending on spec)

Stock: Fully adjustable folding

Length OA: 935mm with stock deployed with STD 406mm barrel
675mm with stock folded with STD 406mm barrel



Visible within the chassis you can see the carbon fibre wrap of the Hardy barrel which is visually appealing.