

## “Teja’s M14.ca Blackfeather “RS”

[www.m14.ca](http://www.m14.ca)

Finally!

It's been a couple of months since I was on the phone with Frank hammering out the final details that would allow U.S. buyers to get the right importation permit from the BATF. I was even the first to submit my own application, but wound up at the bottom of the stack as the BATF was swarmed by others like me that had already paid in advance of the Blackfeather release. In the end, the BATF took every bit of the six weeks they told me to expect, and then there was another three weeks combined for me to send the permit to Canada and for the parcel services to return by Blackfeather RS. The sucky part? I was out of town on business when it arrived! I wouldn't get home to see it for another four days. It was worth the wait!

In addition to my finished pictures, I wanted to give an account of my own installation. I think it's worth restating that this is not a drop in riflestock (unless you are extremely lucky) and that would lessen the value that comes from a properly fitted piece of furniture. The Blackfeather will represent something different to every buyer, and something more to the team that designed it, but for me, it was the accuracy potential and modular flexibility of the aluminum chassis, but without the bulky "spacegun" ergonomics of the Sage EBR or the weight of the Troy MCS. It retains the profile of a conventional stock up front, but allows the myriad of M16/M4/AR15 accessories out back. The adjustable barrel tension and mechanical bedding seem to be second to none, after having completed the installation.

Before I detail my experience, I must say two things: 1st- Every variety of M14 and M1a can expect differences in actual fitment that I may not have experienced. For that reason, novice beware. Frank and the team have done a great job of detailing potential concerns in their instruction manual. **READ IT AT LEAST TWICE!** I didn't, but learned my lesson. The manual saved my ass. 2nd- I've owned many rifles, and have built a few of my own. This is the first that I can say I have confidence to take anywhere, into any situation, fully prepared to take any shot that I can compose from the driver seat. While I need to take it out for a shakedown run, from my experience in mechanical engineering over the years, I can say it is well capable of out performing me in any application I can imagine.

Now about the install... it wasn't as easy as I had expected, but after seeing, handling and installing the system, it wasn't unreasonably difficult. Professionals will have little trouble with it, and the prepared amateur will manage just as well as I did.

First off, I should have read the instructions. Don't get too excited here. Take the time to digest the information, **EVERY WORD**. I had no issue with disassembly, except that I always forget the set screw on the castlenut holding the muzzle device. I pay my dues for this mistake in having to fix my boo-boo with a new castlenut and cold blue to touch up the scars. (read the manual!) Removal of the old op-rod guide was uneventful, drifting out the roll pin and drifting off the guide. I found that my guide had been installed after the barrel boss was knurled heavily. I expect this was a standard practice when SAI rebuilt the M14 into an M1a (mine is a 1995 vintage, still all GI parts). The rest of the installation boiled down to 3 more points (for me, read the manual!). 1. Fitting the new op-rod guide, 2. fitting the fire control assembly, 3. adjusting the barrel tension.

In fitting the op-rod guide, I used the included emory paper on the barrel and inside the guide, though it was eventually necessary to knock down the knurling with a file. I took care to keep the file on the knurling so as to

prevent any change in shape of the barrel boss. I fit this extremely tight. Resist the temptation to grab a bigger hammer on this job. Take the time to fit the parts. Once located according to the original roll pin bore, I installed the new pin provided. This was not exactly aligned with the position required to bolt the op-rod guide down into the stock, but it was close enough to allow trouble free assembly. Read the manual carefully here. Options on fitting this in a more correct position, without the roll-pin, are detailed. As tightly as mine is fitted, I was not compelled to dismount it since I had no obstruction to final assembly. The stock allows room to move here, given the wide variations in these rifles over the years.

The next big concern, in my case, was the lock-up of the fire control assembly. I found that I could not close the trigger guard. Again, this is detailed in the manual. My rifle was built on a GI fiberglass stock, bedded with epoxy at SAI. Because they assembled the fire control and receiver into the stock before the epoxy cured, it allowed a measure of fitting without doing any work on the metal parts that interface when you latch the trigger guard closed. I found mine had never been touched by a file or stone. When I tried to latch things down in the new stock, the hooks on the trigger guard were too low and/or the slots on the receiver lugs were too high. If you look carefully at both, you will find a round tooth of sorts in the opening where the two parts meet. It's most noticeable in the trigger guard. The notch made to create the hook is comprised of a hole with one side removed. The notch is not as wide as the hole. It creates a narrowing of the notch. This is where you remove metal to resolve a situation like mine. The trigger guard notch is filed higher, and the lug notch is filed lower. Work slowly here. A dozen strokes is a lot. File both hooks and lugs together, so the left and right stay even. After a few tries, I found I could reliably latch my trigger guard, however I left it very tight. I may have to revisit this point.

Tensioning the barrel is optional (as detailed in the manual). I went with the basic recommendations and made only a couple of trial fits to get a light tension that I could achieve by hand, before installing the bolt into the bottom of the op-rod guide, through the fore-end.

Lastly, I assembled my Magpul furniture and made final adjustment, added my sling swivel sockets for QD swivels from GROVTEC, etc. I even squeezed the critical parts of the cleaning kit into the VLTOR shotgun receiver extension and the compartment on the ACS-L butt-stock. With my scope mounted, an empty magazine and no cleaning kit, she weighs in just short of 12 lbs. I am stoked and may find my way to the range this afternoon!

One note about break-in. (WTF? Break-in?) Yes, break-in. All these parts are under tension. They will settle. Many years ago, I was in school for automotive collision repair. I had a truck with bent frame rails on the frame machine. One of my first lessons was about strain relief. We pulled the frame in all the right directions and left many thousands of pounds of pressure on the chains. My instructor handed me a hammer and told me to work up and down the frame with a few dozen modest whacks, not to leave marks, but to make sure my presence was known. To my surprise, the pressure on the chains dropped with every hit, as the metal was relieved of the stress I had put it under. This meant the rails didn't rebound when we removed the force, but instead they settled where we wanted them. I expect this same stress relief as I fire the first hundred rounds or so, settling the parts that I have persuaded against their will. Don't go out and expect perfection from your rifle, until you allow it some time to get acquainted with it's new home.

Oh, and I only have one point that I consider a shortcoming on the Blackfeather. The trigger reach is perfect for me. I have somewhat smaller hands, but not at all dainty, so I expect few will have a problem with the position of the pistol grip. It is back a bit from some other designs, a point that worried me until now. I'm satisfied with the reach to the trigger, however, the gap between the trigger guard and the pistol grip is pretty wide. I am already

finding it distracting and that my grip slips up into it. I will be fashioning a filler block to go here, though it would have to be removed to unlatch the trigger guard. This isn't really a big deal as it seems more practical to dismount the butt-stock assembly at the adapter block before trying to pull the receiver from the stock. Just a thought.

Now, without further delay...

My Springfield Armory M1a (1963 TRW M14 demilitarized circa 1995) cal. 7.62x51/.308, w 22" TRW barrel and SEI Coast Guard brake in a 1st run Blackfeather Rifle Stock from M14.ca, dressed in Magpul furniture (ACS-L on a VLTOR tube, MOE-K grip & AFG-2 fore-grip), topped with a Bassett Machine mount supporting a Leupold VX-R Patrol 1.25-4x 30mm scope in Warne rings







## **RANGE REPORT!!!**

It was short, but sweet!

I spent about an hour and 40 rounds at the 100y indoor range this afternoon. I was quite pleased. Let me start by saying that I'm no Davy Crockett. I usually have to get my best friend to apply his Marine Corps skills to any accuracy testing I do, but he couldn't make it, so I limited my shooting to a good sighting-in and spared the ammo for my next trip.

First, I had already shot this rifle with the Leupold VX-R Patrol 1.25-4x 30mm scope that's on my Bassett Machine mount, so I fully expected to be on paper just remounting the scope, as usual. I was correct, though there was a significant change in point of impact. I expect this is due to the difference in tension on the barrel and receiver. I was also shooting off a fore-end rest with a sand bag under the pistol grip. I could have done better off a proper rest or with a sling, but that's what I usually leave to my pro.

My first 5 shots at 25 yards, to make sure I was on paper, went through one hole that looked like 3 rounds. Point of impact was level with point of aim, and about 4 inches to the left.

The second group of 5 rounds was fired at 50 yards, with no changes in windage or elevation. The group was 5 holes in a 1" diagonal string, roughly 45 degrees from 10 to 4 o'clock. Point of impact was several inches above point of aim, still about 4 inches left.

The next 15 rounds were spent dialing in POI to POA (2" high to approximate a 200y zero). This was pretty relaxed, and looked like it.

The first 5 rounds fired at 100 yards for grouping were still just a little left of POA, spreading to about 2.5", but clearly my fault as I hadn't settled in. I made a minor tweak to windage and moved on to the next group. The 2nd group of 5 at 100y was 1.5", discounting a flyer on my part. This is where I was noting my heartbeat in a slight bounce in the reticle. Put that on top of the fat crosshair, and I was having a hard time settling down. I made my final adjustment to windage and reloaded.

The last 5 rounds went in right where I wanted, 2" high, straight up. The group had all 5 rounds within 1.5", a new personal best for me. Now that is half of what I was shooting with the same ammunition and optic on my last trip. In my estimation, a skilled shooter will be well under 1 MOA with my rifle. I will try to drag my Marine out this weekend to prove it.

Oh, ammunition was from Freedom Munitions, remanufactured 150gr FMJ .308, brass case and lead core. I have been very happy with this load. My only issue with Freedom Munitions was with a couple of boxes of .223 that had bad primers. They replaced the whole order, no questions asked. The .308 has been 100% reliable.

Here are a few more observations...

1. People were staring. It was weird. Only one had the nuts to ask me what sort of chassis I had. He got the tour. He made favorable remarks about the butt-stock configuration, adding that he shot a Sage EBR a couple of weeks ago and noted an obvious flexing of the stock rails under recoil.
2. The rifle sounds different. It has a sharp, higher pitched ring when the action cycles. We dry cycled my gun next to a Polytech M14s in a wood stock and found the difference was quite distinct.
3. The rifle felt smoother, crisper. I suspect the op-rod guide and spring guide are responsible for this. I would say that the rifle seems to cycle more positively and consistently.
4. Recoil was quite literally, unnoticed. I mean, really, it never entered my mind. This is a big switch for me. I usually come away a little sore, and make a deliberate effort to limit muzzle rise off a rest. I do have an SEI Coast Guard brake, but there is quite a difference in the Blackfeather, having fired the rifle a good deal in the GI fiberglass stock, even with the brake. I had no trouble resetting my sight picture from the rest. I give the credit here to the improved line of the recoil, with the slightly higher butt-stock, and to the slight increase in weight at the front of the gun. While you can choose lighter furniture to achieve a net loss in weight, my combination is one or two pounds heavier than it was in the GI fiberglass.
5. Comfort level and trigger control are much better with the improved ergonomics. I walked away perfectly at home with the new layout. It was intuitive and felt very natural.

I am a happy camper! I promise, more range time this weekend.....cont'd.