

You ever get tired of reading forum questions regarding the “best” this or that?

The only thing I like less are the responses about the “best” this or that...

www.dictionary.com describes “best” in adjective form as:

1. of the highest quality, excellence, or standing: *the best work; the best students.*
2. most advantageous, suitable, or desirable: *the best way.*
3. largest; most: *the best part of a day.*

I didn't write this article to rant. Instead I'd like for folks to consider a few things. When we rate anything as “best” it is certainly relative. If, for example, a guy test drives four cars on a Saturday and opts to buy one, he'll probably tell his buddy over beers Saturday night that he bought the best of the four. Did he buy the “best” car available? Who knows? Of those he tried, he probably bought the best for his needs. No matter how you slice the bread he only tried four of MANY available cars... By that rationale how could he possibly determine “best” from a handful of cars? He determines “best” by those cars he tried and thus, he chose a car that fit his needs.

Some friends and I were sitting around having one of those “best” conversations regarding AR15 triggers and fire control groups when it donned on me, that without trying them all we couldn't really know. Even then, the AR platform has become so versatile it can be used in any configuration from pistol, CQB, varmint hunting, medium and large game hunting, precision, competition, long range, extended range, and many others. I can think of several different trigger weights and styles I'd prefer for most of the applications noted above. As a result I wanted to get my hands on as many of them as I could and do some side by side comparing. To take it a step further, I wanted to have others lay their hands on them for their impressions as well.

I started contacting trigger makers in October about this test and evaluation. Most of the triggers were donated or of low cost for the purposes of writing the article. My commitment was pretty simple – I'd have a built AR lower with everybody's trigger installed, so we could swap an upper onto any of them and do some genuine comparisons. I'd also run lots of ammo through each rig to see how they worked under heavy use. I wrote letters to 14 makers, figuring I'd hear from 7 of them, 4 of which would send me something. Four lowers and plenty of ammunition... Not a big investment on my part... Imagine my surprise when 9 entities sent a total of 14 triggers for test... WOW! I opted to have all the lowers built prior to an “AR build clinic” I held at my shop. Members of the AR15.com Iowa Home Town Forum showed up and we built uppers and lowers with instruction and theory for those new and old to the AR platform. I was beginning to wonder if I'd get it all done in time, but I did. As a result, folks who came to the build clinic were able to handle ALL the lowers with triggers installed. We then took those lowers folks were interested in out to my range for some hands on time.

I've listed the fire control groups below that I was able to test. As you look at them, you'll see some pretty neat things. I ended up with the following for test:

Chip McCormick (CMC)

- single stage curved
- single stage flat
- two stage flat

This is a modular drop in style trigger. It is very easy to install. You simply lower it into the lower receiver, line up the holes, and you're nearly finished. Like all drop in units it is necessary that the trigger and sear pins are held in place. They provide a means to affix the assembly rather than a means for actual fulcrum contact. You simply install the e-clips on the pins after you drop them in. A word to the wise on this... There is a reason they send you six or seven clips when four are required! My advice is to install an e-clip on the end of two pins prior to sliding them in. Then, you only have to contend with two little clips against the side of your lower instead of all four. Needle nose pliers worked like a charm for me and this was extremely simple. I loosened the grip low enough to allow the safety selector to be removed as the detent dropped a bit. I never actually removed the grip, spring, or detent. Then I installed the trigger, pushed in the pins, double checked the safety, and retightened the grip. The quality is very good and the single stage unit was impressive.

Although I generally consider myself a single stage guy, I especially like the flat trigger in the two stage configuration. The flat shoe offers me a bit more room to put my finger way down on the tip and gives me better trigger control. I happened to have this one already on my favorite varmint rig. At first I didn't know if I'd like it, but now I can't imagine using anything else on that rig. Both the curved and single stage units were very nice. It is amazing to me that makers have come up with drop in units like these. Pin holes and receiver floor depth vary slightly among manufacturers. You can't always count on a drop in to be the right choice. The

fact is they may not work in every lower. Luckily enough, they ran like a champ in my Superior Arms lowers and I had no installation or function issues.

When I first discussed this with Chip I had this feeling I was going to like him. He speaks clearly and methodically with a southern drawl. He's a busy guy but he made time for me and focused on my test. The more I interact with tests and evaluations, I'm finding a common trend with most of the folks in this industry – they are fine people with great character.

His trigger, like many, was a clear answer to the lack of aftermarket units available at the time he conceived his design. Chip's roots started primarily with the 1911 crowd both as a builder and competitor. He explained to me that on a particular prairie dog shoot he used an AR15 for the first time. He returned, enjoying the trip and rifle, and opted to give his AR15 some upgrades. After searching for just the right trigger he was still left unsatisfied even though he'd bought or used just about everything available. As a result he built his own. Chip wanted something that worked well and was easy to install. I'd say he accomplished his goals.





SATISFACTION GUARANTEED **

Chip McCormick Corp.

Match

AR15

162,824

PART # 91501

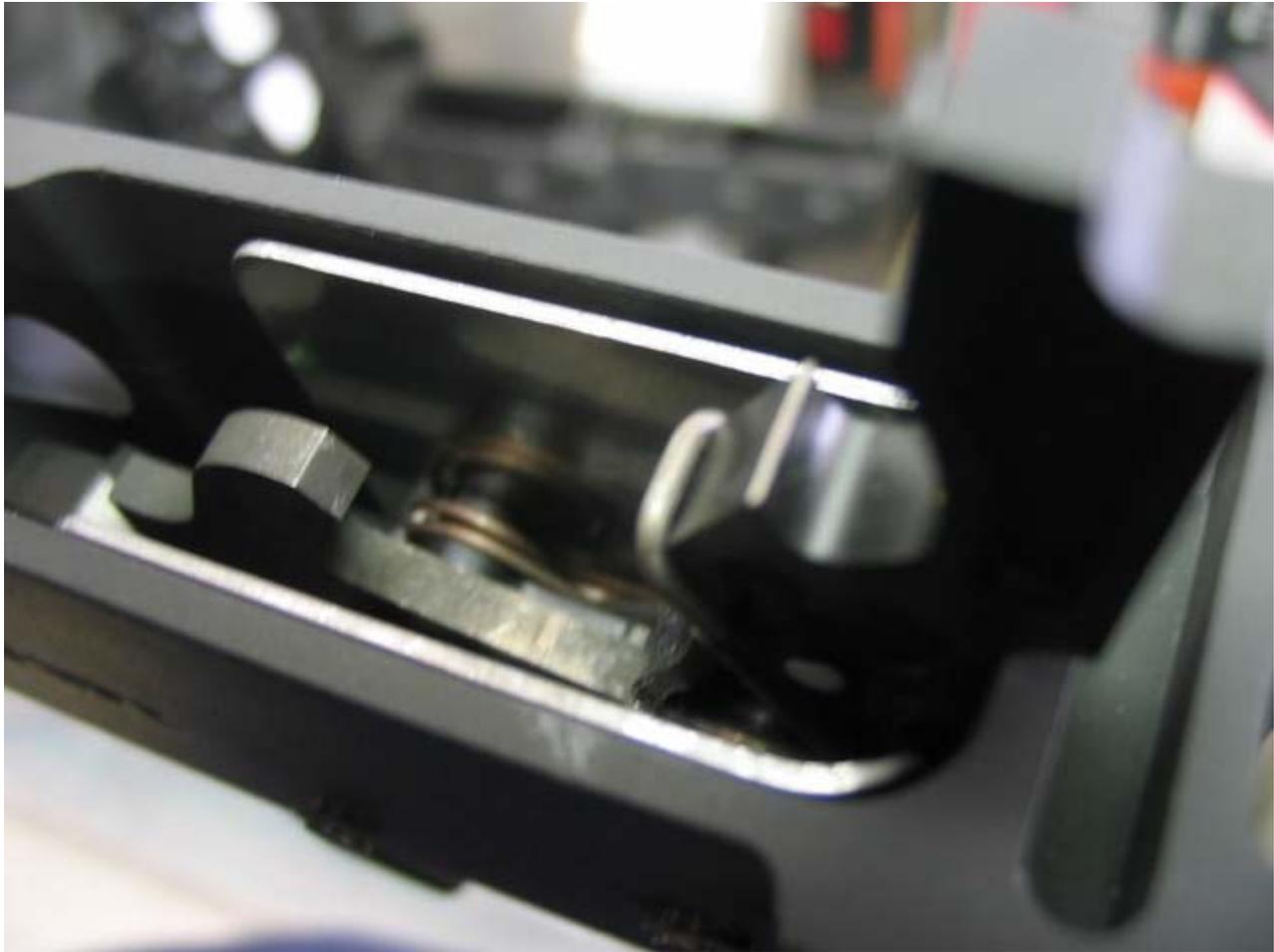
Check for safe
SATISFACTION
VOID IF PRODUCT
ALTERED, OR TA

Installing one piece
installs in minutes.
of function, you're done!

WARRANTY TERMS
DISASSEMBLED,
ED WITH IN ANY WAY.
WITHIN 30 DAYS OF
A RECEIPT. OFFER ONLY APPLIES
FOR PURCHASES FROM PARTICIPATING DEALERS. REFUND
AMOUNT BASED ON CMC RETAIL PRICE.











JP Enterprises
-component trigger
-modular trigger

John Paul has a habit of making some pretty serious stuff. His component trigger allows a great deal of adjustability and manages to do it in a very versatile package. Within reason, you can just about set this thing up any way you'd like. Creep, no creep, heavy, light, two stage, single stage, over travel, etc. – it is all there. I wouldn't say this is a unit for the complete novice to install, but frankly, with moderate weapons knowledge and basic AR theory you can make this one work. The set up can be tedious, but the work is worth it. You aren't going to get a fantastic trigger without some work in most cases. Although I had installed quite a few of them, JP offered to install mine for me to make certain it was to his liking. He did it up right... The lower came back to me in top shape and worked very well. Super product!

JP also came out with a modular drop in trigger assembly. To look at the little bugger you have to wonder if there are little tiny machinists you can hire to do little tiny jobs, or what? This little piece is a work of art. The basic principles are similar to the CMC, but it is a bit different. This unit utilizes a pair of screws on the bottom side to contact the receiver floor. In the case of the CMC, you simply push in the pins they provide and pin them so they can float without vibrating or working their way out either side. With the JP you simply tighten down the screws against the receiver floor so it binds against the pins. Nothing moves after they are torqued. The assembly is held in place and the hammer and sear rotate on bushings inside the unit, not on the pins. This is a pretty slick unit and easy to install. There was some adjustability as well, which gave it a bit more versatility than some.

JP

Enterprises, Inc.

Performance Tactical Gear

JPFC-M

**JP Modular Fire Control Unit
.154 small pin**

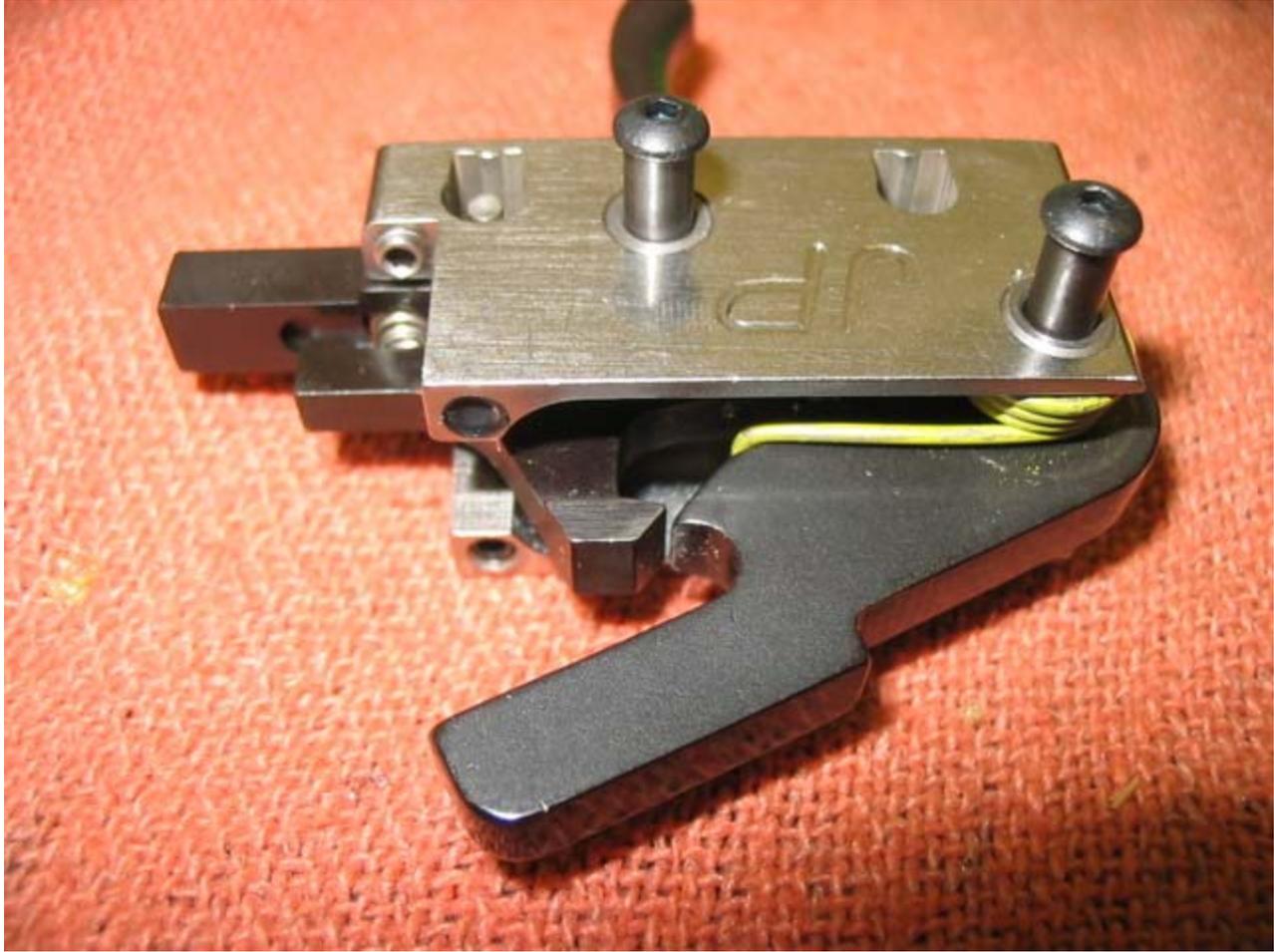
Serial Number 611950

JP Enterprises, Inc.

www.jp Rifles.com

P.O. Box 378 Hugo, MN 55038

Voice: 651-426-9196 Fax: 651-426-2472











Accuracy Speaks
-single stage

Derrick Martin has been running in precision shooting circles as long as I can remember. Even though I don't believe him to be a picker his pictures would indicate otherwise, not that there is anything wrong with that... The joke refers to the pics all over his website. When I first visited the site I wondered what the hell was wrong with him. I was foolish enough to make mention of it as my wife walked by, to which she stopped, took a look and remarked "looks like something you'd do... Would you like to be called the kettle or the pot today sweetheart?" After giving this some thought, I giggled, and figured Derrick was my kind of guy. Cheryl, his wife, made most all the arrangements for my test and manages to run a tight ship through Derrick's absences. I can really appreciate the man/wife teams, as my wife has become a larger part of my small organization over the last few years.

His product is pretty darned good. Like many AR triggers it is very simple. He has taken a fair design in the stock trigger and made it much better. When I first installed the trigger I was disappointed. It had quite a bit of creep and it was a bit sticky. No matter what I did, I couldn't seem to get the stickiness out. For example, if you pulled the creep out of the trigger and then removed your finger from the shoe, it would remain pulled up tight against the sear instead of returning forward. I bet I took that trigger out and reinstalled it two dozen times. I tried different trigger springs, inspections, and lubes. Nothing seemed to make it work like what I had expected. Frankly, I assumed from the way it had a tendency to cam, that a geometry issue may exist. I then opted to put the trigger in another lower receiver... The problem still existed.

I ended up calling Accuracy Speaks, and Marty, their smith, remarked that something must be wrong. He sent me out another unit ASAP. You would not believe the difference. Upon inspection the only thing I can think of is the sear surface could be suspect. It might have been too long, but it was hard to tell without having both side by side to compare. A brief phone call later, and I was back in business. It is amazing how well it works. It functions flawlessly now and was one of the most consistent I tested. It also was one of the most simple. You probably couldn't tell it apart from mil spec stuff, but installed in the lower, you'd have to be stark

raving mad to move past the function between the Accuracy Speaks unit and the mil spec stuff.







Armalite

-two stage national match

I was hoping to tour the Armalite facility, but time constraints and scheduling conflicts proved to hold the proverbial trump card. I can say that traveling often through the Quad Cities area has its advantages after you recognize you're in the heart of AR15 country. I plan on visiting there again in coming weeks, so if I can shed some light on the Armalite organization first hand, I certainly will.

The Armalite is a very robust design. The first thing I noticed was the size and width of the parts. I don't know if this has something to do with mass or strength or both. Whatever the reason, you can't not notice how stoutly it is built. The function is just as you'd imagine. It works flawlessly like a National Match trigger should. There really isn't anything special about the trigger, it just works. I can't see this trigger failing me. While talking with some of the Armalite staff, they reinforced this theory to me. Their aim is one of reliability and repeatability. There are no screws, so nothing once tight can become loosened. The disconnecter has three slots, so you may move the trigger spring into one of three slots to raise or lower pull weight a few ounces at a time. This trigger proves to be just about solid as a rock. I've listened to some folks who criticize the Armalite and other triggers that are only surfaced hardened. Although there is merit in through hardening, a trigger like the Armalite NM doesn't need to be modified or changed, thus the surface hardened hammer and sear surfaces will indeed last a great while.





Rock River Arms
-two stage national match
-two stage varmint

The Rock River Arms unit is very similar to the Armalite unit. The RRA construction isn't quite as large, but maybe size doesn't matter... Somewhere I can hear my wife giggling again.

I was given a tour of their facility by Steve Mayer. Although pics aren't allowed on a general basis, I was able to take some quick snaps of the trigger bench. Some may assume RRA has a trigger design and some third party casts and cuts the parts. Then a further assumption might be another party bagging them and sending them to RRA to be distributed. I really hadn't thought about it either way until I was looking at the work being performed. I watched two young men work like crazy at the sole job of refining the trigger set. Jason was working on trigger sets to be bagged and sold. He tuned and polished each unit as a matched set. This isn't a scenario where they snag parts out of a bin and make a "kit" to be sold. Jason hand works each set in a jig and each set is shaped, polished, and given the diamond stone where needed. Joe was building matched sets that were installed and tested in RRA lowers – IE, each RRA lower Joe builds with the RRA trigger gets tuned and installed in that particular lower and then the lower is sent on down the line for the balance of the work. I wish pics were available as the facility is clean and white. Even the 1911 room is clean and white. It was certainly my kind of work environment. Every area of the facility was well planned for proper flow, well tooled, and clean. The triggers themselves are super. They work just as a NM trigger should. I can say from my own experience with lots of them, they have quite a grasp on the quality control. To say you could pick up a weapon and realize with one squeeze that it was a RRA NM is overstating a bit, but not by much... What I found interesting was their new varmint trigger. It is very similar to the NM, with a lighter pull weight. Talk about a great unit! If you can install the mil spec stuff, you can install this. No adjustments, no problems, just a fine trigger pull. I haven't been hearing about the RRA varmint trigger much, and maybe it is a secret. If so, it shouldn't be for long...

Jason at work:



Joe at work:







Alexander Arms
-single stage

When Bill Alexander and I first discussed his trigger he was proud of his product and remarked that it was built for reliability and feel. He didn't really give me the feeling he was trying to "pitch" me a sales line. Frankly, I was kind of looking forward to it. I now realize my impression of Bill being slightly subdued, could have been by his design... I pulled the trigger out of the packaging and spent quite a bit of time fondling it. The appearance is beyond belief. The shoe is narrow and slightly forward of the average shoe placement. This was designed specifically to enhance feel, especially when cold weather requires the use of mittens or gloves. This is a hard trigger to get used to, but it is certainly worth your time. Take a look at the pics and you'll notice when the disconnector has allowed the hammer to move up, it rests at a much higher position than the average hammer. Why isn't it laying flat like the position it is in when the bolt carrier moves rearward, then forward??? Because, it doesn't have to be horizontal... With a higher hammer position it moves quite a bit less to contact the firing pin and speeds lock time considerably. The cool factor is certainly in place here as well. The 1911 guys will certainly take notice of the skeletonized hammer and trigger. Bill was being coy when he described the trigger. The geometry of the sear engagement is such that there is nearly no camming whatsoever. Even though I have a model with .050" over center build, the trigger he sells currently is built to .005" and is the bee's knees.





Note the disconnector position and the height of the hammer:









Geissele
-DMR

What can I say? Bill and Amy build a super duper unit. I had heard many stories about the Geissele, but never used one myself to any length. I dropped this unit in and it needed no adjustment. I simply tried it, and opted to lighten the hammer just a bit, by bending the hammer spring. It broke like you can't believe. Again, this is the result of proper geometry and it shows.

When I visited with Bill about this I wanted to learn as much as I could about his product. I started by asking the proper way to pronounce his name. The "Bill" part was pretty easy. The Geissele part is rarely spoken correctly. In fact I've heard his name pronounced so many different ways, I wondered if there weren't multiple companies we happened to be talking about. The word "guys" and the word "lee" make up the name, "Guys" + "Lee" = Geissele.

Bill started by explaining that at the time he was shooting matches there were a few nice AR triggers out there, but he really believed there was great room for improvement. He really set out to make one for himself, and as luck would have it, he did a tremendous job which has turned into a highly successful business for him and his wife. Our conversation was too long to depict here, but suffice it to say I was very impressed. Not only was I impressed with the product, but more with his approach. Bill set out some basic parameters when he began his design. Things like function, geometry, use of full power springs, etc. were all on the list, but he specifically left out price. He told me he didn't want cost to influence the build and as a direct result of sparing no expense, he has come up with a winner. He's now moved onto automatic fire control assemblies. Did anyone ever expect to have the blessings of a fantastic trigger and auto capability in the same rifle? They rarely go together, so if you're in the market for such a thing Geissele can provide...



GEISSELE AUTOMATICS LLC

MI6/M4/AR15/AR10
HI-SPEED
NATIONAL MATCH
AND
DESIGNATED MARKSMAN
RIFLE TRIGGER
PAT. PEND.

READ THIS FIRST

Firearm safety is YOUR responsibility. You must memorize and put into practice the 4 Rules of Firearm Safety.

1. Assume every weapon is loaded.
2. Keep your finger off the trigger until you are ready to shoot.
3. Do not let the muzzle point at anything you are not









Timney
-modular

Jason Mladineo and I spent a bit of time on the phone. This is the second project he and I have worked on together. I recently wrapped up a three month test with a Timney trigger for the precision bolt crowd. Many of these kinds of tests can be handled without a single call, but I must admit, I enjoy visiting. Jason certainly fits in this group. The Timney trigger is similar to the JP and CMC in that it drops in and provides a bit of room for slop. IE, if your lower is out of spec a bit, you can probably get by. This unit is pretty simple to install. You simply drop it in, use the stock pins to hold the unit in place, and then tighten the two floor screws so they protrude under the trigger housing into the lower receiver floor. The two screws essentially bind the unit into place and the bushings built into the trigger housing provide the bearing surface for the hammer and sear, not the stock pins. I had trouble with the Timney unit when I used some surplus ammo. After diagnosing the problem I noticed I was getting light primer strikes. I called Jason up and he explained that even though the AR15 trigger will usually strike arsenal primers, it was never meant to. He suggested that if you intend on using military grade ammunition, that a person buy the AR10 trigger Timney offers, as it provides heavier springs and a higher mass hammer for certain ignition. To verify his guidance I ran a handful of nearly every .223 ammo I had lying around, and I didn't have a failure. Problem solved.

The fit and finish are super on this unit. These little units really are a work of art. I even like the skeletonized trigger shoe as it adds a bit of flair to the design. I tried this unit with oil, grease, and I even polished it dry, and it still worked well regardless of what kind of lube or absence thereof I gave it.







DPMS

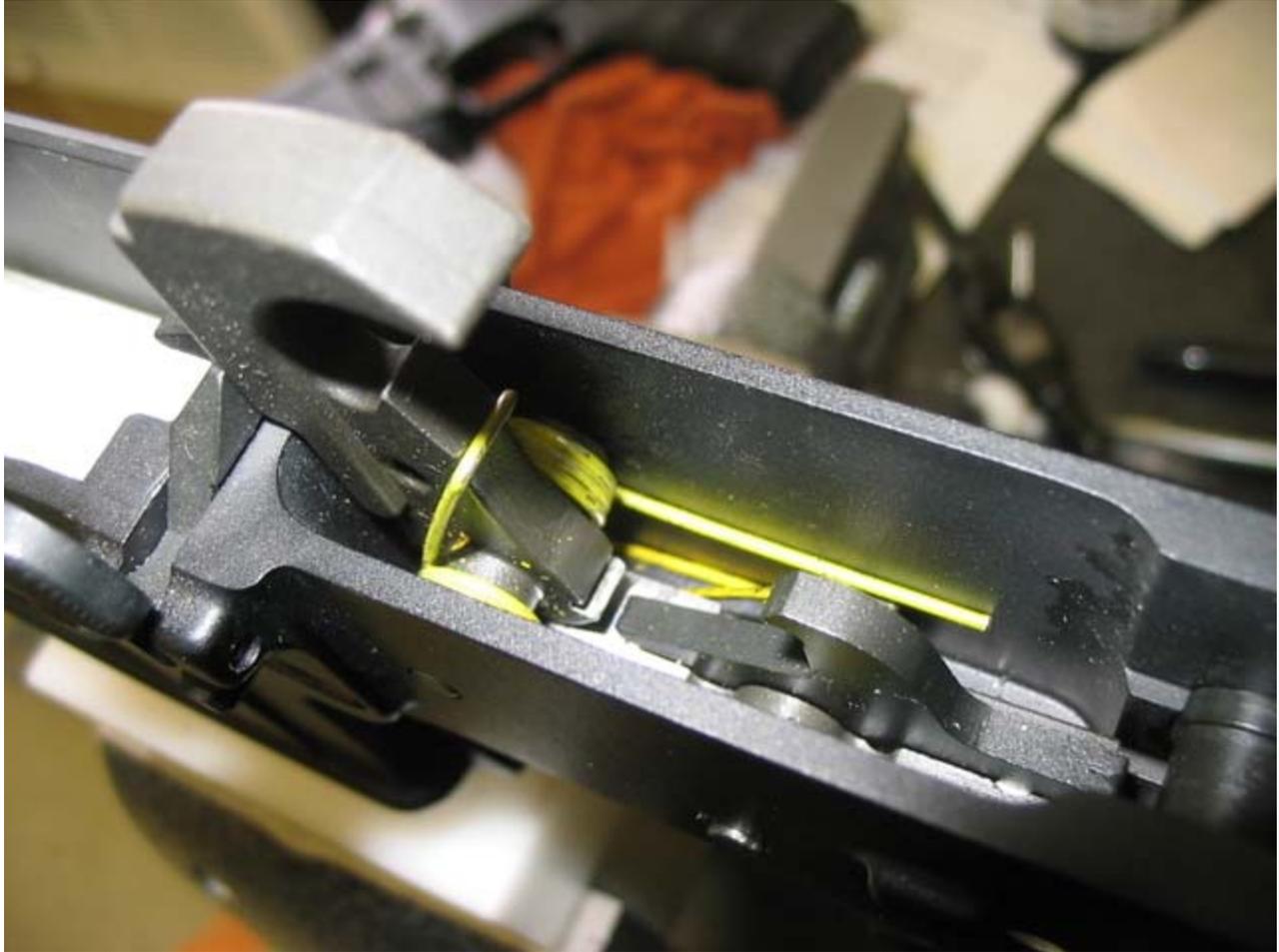
-mil spec semi auto group

-mil spec semi auto group with JP lightweight (yellow) spring kit

In every test like this you have to provide a constant. Granted, stock mil spec stuff is hardly a constant, but when you look at the stock springs and recognize their intended use, we can all agree it is highly effective.

When you add a set up JP "yellows" as many people call them, the trigger pull is much more respectable. The yellow hammer and sear spring set are simply lower weight springs. The nasty creep isn't removed, but the gravel of a stock trigger is lessened to some degree. For \$8, they are worth taking a look into and may be a compliment to the trigger you already use.





The Sum:

To declare a winner is tough as it would be like writing in a "best" vote. I specifically want to avoid that, so we'll look at this from another angle. The word "favorite" comes to mind.

My favorite component trigger was the Geissele. It was amazing in terms of build, function, and while combining all the attributes of a great trigger it manages to do it with high weight springs. This is a big deal, as low weight springs can fail to ignite some primers.

The Accuracy Speaks trigger was very impressive as well. From a glance it looks just like a mil spec unit, but manages to provide a crisp 3lb single stage pull that is repeatable and reliable all with high weight springs. Adjustments and screws aren't necessary as it performs well consistently.

My favorite drop in trigger was a tie. I liked my CMC two stage flat trigger as much as any I tried, but the JP unit was right there alongside. All proved to be great units, but if you consider the possibility that the screws that hold the assembly in place for the JP and Timney could back off, you could have a problem. In the case of the Timney there is nothing to stop the pins from falling out should the screws loosen, however a set of KNS pins would remedy the issue should you choose to employ that kind of contingency. The JP does have pins that screw together, so even if you lost the tension of the assembly screws, you could conceivably stay in the race unless more problems arose.

The dark horse for me was the Alexander Arms unit. I have to give high marks for the raised position of the hammer as well as the forward position of the trigger shoe. As I stated earlier I didn't figure the AA unit would amount to much as Bill specifically asked me not to hope for much. As it turns out, the trigger was very much to my liking. Again, the shoe takes some getting used to, but in the end it appears to be very reliable and provides for an ultra fast lock time.

When it comes to the NM triggers it is hard to say which unit is a clear winner. Both the RRA and the Armalite are super units. You'd just about have to flip a coin, but if I was going to have to choose, I'd look to the RRA unit by a nose for no other reason than trigger feel.

My Thoughts:

I learned quite a bit about triggers, basic build design, sear/hammer relationship, geometry, etc. throughout this affair. One thing that sticks out in my mind is how trigger pull doesn't always dictate hammer spring strength and/or lock time. In cases where we are using lightened trigger springs, there can be a risk of light primer strikes. This is basic physics and is hard to avoid. As such, I gained a new found respect for those companies that were able to combine low trigger pull weight while still achieving a quick lock time using stock/mil spec trigger spring weights. This is truly a result of changing the hammer/sear relationship and the angles. I know it sounds simple, but it is tough to actually achieve.

Also, the materials used in these triggers vary greatly. Some are using surface hardened material, while others are through hardened. To take it a step further, some folks incorporate a chromed surface along the hammer and sear face. The springs are made of varying materials as well. To make the assumption that they are similar is true, but misleading. I can tell you the notion of the age old "15 minute trigger job" is one I'll forget forever with no reservations... The funny thing about AR15 triggers is that they are so simple that everybody thinks they can snip off half the spring here, and bend a bit there and you're in business. Sure, you've lowered the pull weight, but don't bawl about FTF (fail to fire) issues afterward... Granted, there are places and instances where buffing and polishing past a surface hardened part will work, but for reliability and any decent volume of fire it should be considered an all around bad idea. For the guy who runs a couple of thirty rounders through his A2 once a year, a polish job and snipping off half the trigger spring might do fine, but don't expect reliability. I've seen too many 3 gun competitors who were trying to get by inexpensively find out the hard way that you can't rely on a poor trigger job.

Grabbing a set of JP yellow springs for your AR plinker sounds like a winner to me, just as using a Geissele in your Designated Marksman Rifle sounds like a winner. Both are appropriate uses of product with quite a cost differential. Would I use a drop in trigger for military applications? I probably wouldn't. Would I use a NM trigger for a varmint gun? I probably wouldn't. If you dissect this enough you'll find there are places where each product fits and fits well.

This brings us full circle. Each one of these triggers has different features and attributes. If you add the fact that not every unit is meant to be used by the military, and some are marketed towards the varmint, hunter, 3 gun competitor, plinker, precision shooter, and otherwise AR fan, you can see they all have a place. There is no "best" here among them in my humble opinion. There is only what is proper and prudent for your shooting needs. When you seek to build an AR15 and come to the fire control group question, you need to ask yourself first and foremost: what will I be doing with this trigger 95% of the time? When you answer that completely honestly, you'll be in a good position to choose the "best" trigger for you.

I'd like to thank everyone for their cooperation throughout this test and evaluation. I not only enjoyed the triggers and the testing, but I genuinely value the conversations we've had. I believe our relationships are in their infancy. Again, thank you for ALL your cooperation.

I encourage you all to follow the provided links to learn more about each trigger directly from the good folks that make them.

-Michael

www.geissele.com/

www accuracyspeaks.com/

www.alexanderarms.com/

www.armalite.com/

www.rockriverarms.com/

<https://www.chipmccormickcorp.com/>

www.jprifles.com/

www.dpmsinc.com/

www.timneytriggers.com/