

This topic can be found at:

<https://forums accuratereloading.com/eve/forums/a/tpc/f/4711043/m/2861098911>

michael458

15 January 2013, 18:41

#### Terminal Bullet Performance

Flu bug is slowly passing behind me now, getting back in the groove of things here. On the range this morning making "cornbread". Oh, making 500 MDM brass out of 375RUM, blowing out with commeal is an excellent way to form this brass. Have 125 made so far, have not lost a piece of it yet. 100%. Brass looks pretty good too, ready to load and take to the field, no further fire form needed. Time consuming however, but worth it in the long run.

We actually will have some terminals coming up soon as I can work it in. For myself I had CEB go ahead and make a .500 caliber matching NonCon to the newer longer nose projection 450 #13 Solid. This NonCon comes to a very nice 410 grs. This bullet should be able to top 2550 to 2600 fps in the 500 MDM and well over 2300 fps in the 50 B&M. I already know that 335 gr NonCon is enough for buffalo because of the Super Short in Australia, the 410 should kick ass at velocity. When we get some loads worked up we will find out.

Another one in the works that I had done is the 225 gr 416 NonCon. I have 250 of these, will be working with the 416 B&M and see what we can do with that! I am thinking a match to the WONDERFUL little 250 in .458. This little 416 should kick ass on anything thin skinned, anything! Big Bears included! We will find out, soon as I get the loads up and running.

Dan sent a box of ER (extended Range) C150 CU Raptors 150 gr 308. A very wicked looking copper boat tail with talon tips installed from the factory. This looks rather interesting for a "Rat Caliber". Probably shoot this in 300 Win and 308 Win.

Also, he sent a box of ER D176 Raptors. 176 gr 338 caliber Extended Range Brass Raptors, just a boatail on the end, not a #13 profile. Nice looking bullet, talon tips factory installed. Will give this a "Shot", so to speak, with 338 WSM and the big wicked 338 Ultra and see what happens.

So, there you have it, we have some terminals coming up, have other major projects ahead of this right now, but will see what I can work in over the next couple of weeks.

Back to making some "cornbread" now!

Michael

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The New Word is "Non-Conventional", add "Conventional" to the Endangered Species List!  
Live Outside The Box of "Conventional Wisdom"

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416Tanzan

15 January 2013, 20:11

We'll be watching.

On the 338 ER Raptor, the 13degree profile is probably only important for solids. Once the front end blows, the ragged wadcutter becomes an ultimate flatnose.

It's good news on the upcoming tests. I've always been hoping for Dan's long-range pedigree to do something creative in rat calibres like 338 and 416. Hey, 'rat calibre', did I say that? Those are two of my favorite calibres. So what do they do on sub-50 lb critters?

Here is what a 416Rigby can do at 201 yards on a 35lb oribi. Oct 2012. The entrance was inside the front left leg on the opposite side. The exit is shown in the picture. The heart was missing when we skinned it in camp. 350 grain .416" Barnes TSX. Granted, a CEB might have blown out the whole right shoulder. (We haven't gotten those over to Africa, yet.)



In any case, these calibre are adequate for 35 lb. animaux.

+ + + + +

"A well-rounded hunting battery might include:  
500 AccRel Nyati, 416 Rigby or 416 Ruger, 375Ruger or 338WM, 308 or 270, 243, 223" --  
Conserving creation, hunting the harvest.

**416Tanzan**

**15 January 2013, 20:25**

PS:

I have a picture of the entrance wound on the oribi in the previous post.



The entrance led to the side exit wound in the post above. The heart was just missing.

The oribi is sitting on the smoking platform and has been smoked already for 24 hours in this picture. He was enjoyed.

+ + + + +

"A well-rounded hunting battery might include:  
500 AccRel Nyati, 416 Rigby or 416 Ruger, 375Ruger or 338WM, 308 or 270, 243, 223" --  
Conserving creation, hunting the harvest.

**capoward**

**16 January 2013, 20:39**

Looks like you had good eating with that little Oribi...

Jim 🤖  
"Life's hard; it's harder if you're stupid"  
John Wayne

**michael458**

**19 January 2013, 17:53**

Here is the 450 BBW#13 Solid and it's matching 410 BBW#13 NonCon loaded in 50 B&M for testing yesterday.



**50 B&M**

**450 BBW#13 Solid**

**410 BBW#13 NonCon HP**



**.500 Caliber  
450 BBW#13 Solid**

Damn good looking bullet, and on the .500s I had Dan lengthen the Nose Projection. However, I did not get as much effect it seems from the added Nose Projection as I would have thought, and I am not going to lie, was a little disappointed in the depth of penetration, could be me and my expectations too high I suppose.

**50 B&M**  
**1:12 Twist Rate 18" Barrel**  
**1/18/2013**

**450 BBW#13 Solid**  
**Muzzle Velocity 2288 fps**  
**22 Yd Impact Velocity 2215 fps**  
**X2--59 Inches**  
**X2--58 Inches**



photobucket



**500 MDM**

**1:12 Twist Rate 21" Barrel**  
**1/18/2013**

**450 BBW#13 Solid**  
**Low Pressure Reduced Load**  
**Muzzle Velocity 2208 fps**  
**X4--56 Inches**



photobucket



Tested against the old and first 500 BBW#13 Solid.



Naturally the loads in the 500 MDM are reduced Low Pressure loads that I am using to set this new 500 MDM up with RL 15 and that low pressure Homeber brass.

I will tell you this, the 410 BBW#13 NonCon did not disappoint! In fact, it was well into the perimeters that I was hoping for, My New Buffalo bullet especially in the 50 B&M rifle and case! This one hammered. Piss Poor photos, sorry, new camera.

Without the Talon Tip----- Well into "Buffalo Penetration"



And it never ceases to Amaze me how much performance that little Plastic Talon Tip Provides with just a LITTLE more Impact Velocity----

50 B&M  
1:12 Twist Rate 18" Barrel  
1/18/2013  
410 BBW#13 HP NonCon  
TALON TIP

Muzzle Velocity 2388 fps  
22 Yd Impact Velocity 2343 fps  
X2--24 Inches



If you shoot these NonCons in a Double Rifle---Spend the extra on some Talon Tips to Go in them! The Terminal Performance you purchase is well worth that extra "Dime" it costs!!!!!!

Back to the range today, still loading, brass prepping, working with that 500 MDM.....

Michael

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**capoward**

19 January 2013, 19:58

Very nice looking Michael. No worries on the depth of penetration - they're right there with the 450gr NFs.

Jim 🤖

"Life's hard; it's harder if you're stupid"  
John Wayne

**RIP**

24 January 2013, 07:36

Now that I have some sample .500-Cal/410-gr DGBR-HP W27 bullets,  
to try in my 24"-barreled, obese rifles chambered in 12.7x68/49-10:

I wonder if 2700 fps would make much difference in the test medium at MIB, i.e., hexplode the nose more violently AND penetrate the primary missile deeper?

I am sure it should be good. 🤖

**AllenBosely**

24 January 2013, 08:29

Has anyone played with the .416 Taylor using the CEB #13 350 GN FN  
& 325 HP?

How would they work in a .416 Taylor with long mag box at up to 3.6"?

Of course throated to match what ever COL settled on.

Cheers, Allen

It's a Mauser thing, you wouldn't understand.

**michael458**

24 January 2013, 14:59

Jim, I think I expected more from the 450 because of the extra nose projection. As you recall, .500 nose projection has always been a little short. I think .585 or so, because Dan did that first, and from a sample Sam and I sent. Before we learned about Nose Projection. I never changed it, and it really seems there is not much of a need to, not from .585 .600 or so, to .700. Did not seem to make that much difference. Big difference in going from .400 or so, to .600-.700 however. We continue our Education!

RIP--More Velocity, More Everything with these, as you know. I tested some the other day at 2650 in the MDM--22 yds, no tips. Penetration did not increase, but trauma to medium did. Made mush out of the first 8 inches or so. Was a quick little unofficial, unsanctioned test just for my purposes. Next time will be official, and with tips installed just FYI. Wicked--No doubt about it these are in for buffalo!

Allen

I am not sure, but suspect someone out there has used the 416 Taylor with them. 416 Taylor and 416 B&M are very close in performance--Anything you have seen tested in the 416 B&M would be the same in the Taylor I am sure. I used to have a Taylor, but not anymore.

In a long box, seat as long as they chamber and you have enough bands in the neck to hold the bullet tight. Would increase your capacity.

M

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**boom stick**

25 January 2013, 02:05

I hope to see some high speed video of the tipped vs non tipped to see what phenomena is increasing the penetration. Some people have expressed interest in doing the video but we shall see when that happens.

577 BME 3"500 KILL ALL 358 GREMLIN 404-375

\*we band of 45-70ers\* (Founder)  
Single Shot Shooters Society S.S.S.S. (Founder)

**capoward**

25 January 2013, 04:26

Michael,  
Penetration is fine for the velocity, more penetration than needed for buffalo (for the stem to stem departing buffalo shot) and more than sufficient for a frontal brain shot on elephant, and lengthening of the smooth nose surface increases the powder capacity of the 50 B&M while keeping the cartridges feed able from the magazine – so the change is a 'win-win' situation...

That said, if I recollect correctly, the M70 WSM magazine has an internal length right of 3.1" in length – but let's call it 3.07 for manufacturing purposes... If this is correct then you should have Dan manufacture the 450gr FN Solid and 410gr HP NonCon with a 0.800" length from center of upper crimp groove and the meplat before releasing the bullets for sale on the website. This extra smooth surface may not result in much additional penetration but at least you'll know it has been maximized.

And to answer the unasked question – yes the 0.800" length will work perfectly in the 50 B&M SA should anyone want to chamber that round in a M77 Ruger or one of the PF short action rifles...

P.S. I looked around on the TBP thread to identify the penetration depth of a similarly weighted .500 CEB BBW#13 FN Solid but there isn't any... The nearest would have been the 450gr HB FN Solid but that bullet was never used for penetration tests – only velocity and pressure testing... So no joy...

Jim   
"Life's hard; it's harder if you're stupid"  
John Wayne

**michael458**

25 January 2013, 04:48

Jim  
I am pretty sure I went to .700 nose projection on these, going to .800 is getting too close to the end of the magazine, would like a bit of jump in the cartridge so it just does not bump straight into the bottom of the feed ramp. Need a little room for the cartridge to get moving first. So to be honest, in light of what I have seen, I am going to actually tell Dan to change the specs on the two bullets, for future runs, to a nose projection of .600 even. Or at least right now I am considering that. There has never been a 450 weight #13, not official one, may have been some close when Sam and I were experimenting back in the day.

I am very pleased with 58 + inches

M

<http://www.b-mriflesandcartridges.com/default.html>

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**capoward**

25 January 2013, 05:37

Michael,  
I understand your concern – especially if Brian hasn't radius'd the sharp edge of the feed ramp on your 50 B&M rifles. LOL...

If my measurements are correct (or at least fairly close) I come up with the following:  
.500 caliber CEB BBW#13 bullets – 460gr HP NonCon, 460gr HB FN Solid, 500 gr FN Solid:  
Nose Projection: 0.647" (Center of Upper [Between Upper Two Tri-Bands] Seating Groove to Meplat)  
Smooth Nose Surface: 0.563" (Upper Edge of Upper Tri-Band to Meplat)

So if my data is somewhat correct then the measurements of the new bullet should be:  
.500 caliber CEB BBW#13 bullets – 410gr HP NonCon, 450 gr FN Solid:  
Nose Projection: 0.700" (Center of Upper [Between Upper Two Tri-Bands] Seating Groove to Meplat)  
Smooth Nose Surface: 0.616" (Upper Edge of Upper Tri-Band to Meplat)

And as a comparison:  
.423 caliber CEB BBW#13 bullets – 325gr & 375gr HP NonCons, 350gr & 400gr FN Solids:  
Nose Projection: 0.775" (Center of Upper [Between Upper Two Tri-Bands] Seating Groove to Meplat)  
Smooth Nose Surface: 0.680" (Upper Edge of Upper Tri-Band to Meplat)

So if you're taking votes – I vote to keep the Nose Projection of the new 410/450gr bullets to 'no less than' 0.700"...

Anyway that's my 2¢...

Jim   
"Life's hard; it's harder if you're stupid"  
John Wayne

**AllenBosely**

25 January 2013, 06:06

What is the longest nose to crimp groove or crimp place in a mono metal bullet, not sure what its called?

In .416 cal. I would guess the Wouldleigh 410gn Rigby bullet that has the crimp groove closer to the base than the 400gn Rem mag version.

What is the crimp groove to nose on it? Is that the longest nose of the .416 bullets?

The .416 325 HP NonCon is .75.

Trying to figure out the longest COL that might be wanted in a .416 Taylor. It has a somewhat short of .345 I think.

So to be able seat a bullet out as far as practical would be nice.  
Figuring out mag box length for longest COL likely to want.

Cheers, Allen

It's a Mauser thing, you wouldn't understand.

**capoward**

25 January 2013, 06:37

Allen,  
Not going to work with the CEB BBW#13 bullets; they require two bands within the neck for absolute security to keep bullet straight within neck and chamber. Your .416 Taylor only has a 0.345" neck length with is insufficient to capture the base band and the lower of the three tri-bands so it's a no-go...

Regarding C&C bullets with a seating groove - that groove is established for the bullet/cartridge combination to remain within the CIP/SAAMI minimum/maximum COAL. You'll need to purchase a grooving machine and cut new seating grooves to seat for a longer bullet protrusion than the factory spec if you plan to crimp.

Some monometal bullets are more accomodating than other regarding multiple seating depths/longer or shorter bullet protrusion. The NF bullets are the easiest due to their multiple-narrow driving bands.



Jim  
"Life's hard; it's harder if you're stupid"  
John Wayne

**AllenBosely**

25 January 2013, 06:56

I talked to Dan at CEB this eve, he said it would work as long as I had the top two bands in the neck.

I wonder if the lower band (closes to base) could be put lower to keep two bands well spaced apart in the neck or do the three bands need to be at their present location to work properly?

If I understude him correctly with .75" of bullet outside of case that leaves about .600" in the neck for the lower band to be in the case neck. So do the CEB bullets need a case with .600" case neck to work or am I missing something?

I was wondering what the longest crimp to nose bullets in .416 that are out there are?

For example, I would use the 410gn Woodleigh instead of the 400gn because I have room in the mag box for the longer nose rather than the 400gn shorter nose but going deeper in the case.

Cheers, Allen

It's a Mauser thing, you wouldn't understand.

**capoward**

25 January 2013, 07:57

Allen,

The CEB BBW#13 bullets with their 3/1 banding are designed to 'typically' have the upper of the tri-bands exposed above the case mouth (crimp mouth between two upper bands if crimping) with the lower two of the tri-bands seated within the case neck. The single base band is typically not seated within the case neck with the exception of cases with long necks; e.g., 404 Jeffery or the various Nitro Express cartridges.

Of course you can always have Dan do a custom run for you with the banding modified specifically for your particular cartridge/magazine length combination.

Regarding the Woodleighs - I don't believe any of them have a nose protrusion longer than 0.800" length (nose length above the crimping groove).



Jim  
"Life's hard; it's harder if you're stupid"  
John Wayne

**AllenBosely**

25 January 2013, 08:24

Sweet thanks, Jim

Cheers, Allen

It's a Mauser thing, you wouldn't understand.

**RIP**

27 January 2013, 18:12

"RIP--More Velocity, More Everything with these, as you know. I tested some the other day at 2650 in the MDM--22 yds, no tips. Penetration did not increase, but trauma to medium did. Made mush out of the first 8 inches or so. Was a quick little unofficial, unsanctioned test just for my purposes. Next time will be official, and with tips installed just FYI. Wicked--No doubt about it these are in for buffalo!"  
(Doc M quote above)

Good to know. 🙄

**RIP**

28 January 2013, 02:58

This new CEB .500 Cal./410-grain DGBR-HP W27 with or without Talon W tip looks like it was designed for the 12.7x68/49-10.

Jim, take note. 🙄

Should be good at 2700 fps, as pictured below, shown loaded and loose:

Bullet weight/length without tip: 410.0 grains/1.196"

Bullet weight/length with tip as shown: 420.4 grains/1.568"

COL without tip, loaded as shown: 3.358" ('twould fit in a standard Mauser or Ruger Hawkeye)

COL with tip, loaded as shown: 3.730" (Perfect for magazine box of a CZ 550 Magnum or BRNO ZKK 602.)



**capoward**

28 January 2013, 05:33

I'm paying attention. Looks like we'll need RN Talon Tips for your M70 and my M98... Dam nice looking bullets!

Jim 🤖  
*"Life's hard; it's harder if you're stupid"*  
 John Wayne

**boom stick**

28 January 2013, 12:27

That will be wicked RIP. What will you use it on? Buffalo? Any good hogs out there? Deer vaporization? Tennessee squirell? Crows? DWG? There was some interest Talking to Dan for 510 Raptors for the BMG ect. I think we may see a 510 Raptor soon and I hope a 510 ER Raptor designed for the right protrusion length for the BMG. 350 grain Raptors at 3,500 FPS anyone?  
 That should put the hurt bad on anything in its path.

577 BME 3"500 KILL ALL 358 GREMLIN 404-375

\*we band of 45-70ers\* (Founder)  
 Single Shot Shooters Society S.S.S.S. (Founder)

**416Tanzan**

28 January 2013, 13:59

quote:

Originally posted by capoward:  
 🤖 I'm paying attention. Looks like we'll need RN Talon Tips for your M70 and my M98... Dam nice looking bullets!

Actually, we will only need 'short-nose versions' of the bullet, where the three bands have been moved forward 0.33 inches, or where three more bands have been added to accommodate all COL's. That will allow a crimp behind the leading band and a COL of 3.40", something that should fit in most Hawkeyes with a little TLC. Of course, one could always load the bullet above as is, into the chamber and have follow up shots in the magazine without talon tips. If the loads were reasonably full, one could also seat the bullet into the neck. A .45" neck has quite a bit of room for seating the bands and it would take a lot of knocking on the bullet from recoil to push it in so far that all but one of the bands remain in the neck. For ultimate safety, knowing that Murphy and his law lurks in the forest, too, I would probably plan on having only solids in the magazine, properly crimped, since solids are short by nature. I would only load talon-tips in the chamber as a first shot.

Still, I would prefer a design that leaves a total nose length, from behind front band to talon tip, of 0.70"-0.75". That would be a bullet that the 500 Accurate Reloading (+/- Nyati) could use. I am less concerned with the weight. (For load development and ballistic charts I use the total weight, including the talon.) Anything from 370-450 grains would be a great all-around "plains+buffalo" bullet and is why I initiated the build of a 500 AccRel in the first place. (Velocities should be 2900fps-2650fps, depending on weight, and very hunttable in Africa whether long or in close.) Fortunately, my rifle is taking as long as the bullet development, so hopefully they can go down the aisle together.

The simplest solutions then, are to have 6 bands on the 420 grain bullet, or to have a second "ER" bullet properly designed around 350-370 grains that will fit a 3.35"-3.4" magazine.

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"A well-rounded hunting battery might include:  
 500 AccRel Nyati, 416 Rigby or 416 Ruger, 375Ruger or 338WM, 308 or 270, 243, 223" --  
 Conserving creation, hunting the harvest.

**michael458**

28 January 2013, 14:31

RIP

Looks great. I did this basically as a matching NonCon to the 450 Solid. As we already know this gives some added velocity for the 50 B&M, 2350 fps in it's short 18 inch barrel, or about 100 fps faster than the 450 version. Velocity counts with these. Very good buffalo bullet. In the larger capacity cartridges, even better.

Tanz, I did that 350 gr .510, short nose, load deep, add tip, work in your bolt gun, I am pretty sure. Will work through a Marlin action without tip, works in that big 510 Wells and as I recall should work in Hawkeyes. I ran it to over 3000 in the Wells.

M

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416Tanzan

28 January 2013, 14:49

quote:

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Yes, and the web site also says "It has the 67% Meplat BBW#13 nose profile which has proven to give the deepest penetration of any bullet tested to date." But the meplat is only relevant to solids, not hollow points, so I'm hoping for a sleeker design when the ER comes out, whether that results in 361 grains or 375 grains in the total bullet weight.

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"A well-rounded hunting battery might include:  
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Conserving creation, hunting the harvest.

capoward

28 January 2013, 23:16

quote:

Originally posted by 416Tanzan:

quote:

Originally posted by capoward:

👍 I'm paying attention. Looks like we'll need RN Talon Tips for your M70 and my M98... Dam nice looking bullets!

Actually, we will only need 'short-nose versions' of the bullet, where the three bands have been moved forward 0.33 inches, or where three more bands have been added to accommodate all COL's. That will allow a crimp behind the leading band and a COL of 3.40", something that should fit in most Hawkeyes with a little TLC....

The simplest solutions then, are to have 6 bands on the 420 grain bullet, or to have a second "ER" bullet properly designed around 350-370 grains that will fit a 3.35"-3.4" magazine.

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Hum.. Much to consider and much to comment upon. So in no particular order...

Short nose bullet-Talon Tip scenario -

The Lever Gun HP-NonCons are only available in .458, .500, and .510 calibers so all other DG calibers are left out of this particular scenario. And some individuals are unconcerned with +150yd shots but do desire the increased terminal performance of the Talon Tipped HP-NonCon combination but require the ability to feed from limited length magazine - hence the practical need for the shorter rounded/semi-rounded TT nose shape.

An increased number of smaller width bands -

I'm all for this if the total band width doesn't exceed the current 3/1 four bands total width. I've actually been giving this some thought and have decided the best option would be to leave the current top and bottom bands at their current width, divide the remaining two bands to 1/2-current width and add two additional bands (with the remaining 1/2 width each) below the bottom of the upper 3 bands and the bottom band - now would be a 5/1 six band bullet which would both increase the total potential seating positions for the bullet as well as adding better neck tension for longer necked cartridges.

ER Raptors -

I believe the ER Raptors utilize the existing Talon Tips (for the particular bullet caliber) meaning they have the same HP configuration as the BBW#13 DGBR-HP - principal difference is smoothing the bullet shape for better aerodynamics. I believe we'll have to wait for the prototype ER-R bullets in .458, .500, and .510 calibers so that side-by-side comparisons can be conducted in Michael's bullet box to determine if there's any loss in terminal performance. I believe Michael has already demonstrated that Talon Tipped' DGBR-HP bullets outperform both the DGBR-HP LEVER GUN and ESP RAPTOR bullets in his bullet box - which makes perfect sense as both DGBR-HP LEVER GUN and ESP RAPTOR bullets are compromise bullets.

Extended Range Bullets -

Not gloating here 😊 but I already have MTH bullets in .423 and .500 calibers so I'm covered for extended range shooting - at least as long range as I feel comfortable shooting - so I'm not really concerned with the ER Raptors (unless they perform as well as the MTH and are 'on-the-shelf' availability wise). That said I will be discussing tweaking both MTH bullets with Dan before I reorder for either caliber; but I'll also be following the progress of the ER Raptor bullets. But I will still need copper vis-à-vis brass construction for the condor zone here in the Southwest - so likely not a stock item anyway...

Jim 🙏

"Life's hard; it's harder if you're stupid"  
John Wayne

RIP

29 January 2013, 06:00

Jim,  
Round nose tips would be nice,  
but using no tip and seating the W27 with two bands above the case mouth will be perfect for the 12.7x68/49-10 in my M70,  
might fit your Mauser too.

That base band will thus be gripped by the neck as well as the bottom band of the top 3 bands.

Good neck tension either way.

Nice bullet for the 12.7x68/49-10... 🙏

500 Bateleur might be ready this weekend.

capoward

29 January 2013, 06:54

Ron,

10-4 on the W27 seating, it will work in my M98 as well. The band spacing on the W27 is definately made for the 12.7x68/49-10 - seat it standard deep or optional long, works either way...

Definitely a nice bullet for the 12.7x68/49-10... 🙏

Looking forward to seeing and reading about the 'built' 500 Bateleur...

Jim 🤖  
"Life's hard; it's harder if you're stupid"  
John Wayne

416Tanzan

29 January 2013, 12:55

quote:

Originally posted by RIP:  
Jim,  
Round nose tips would be nice,  
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That base band will thus be gripped by the neck as well as the bottom band of the top 3 bands.  
Good neck tension either way.

Nice bullet for the 12.7x68/49-10. 🤖

500 Bateleur might be ready this weekend.

How much powder room do you need? How fast are you planning to shoot that bullet?  
And if you need extra powder for extra speed, don't you need a good BC to make use of the speed?

I'm thinking that the full seating will still let you load the bullet to about 2725-2800 fps. That, a tip, and a cup of coffee, ought to get you any eland or elk you desire.

+ + + + + + + +

"A well-rounded hunting battery might include:  
500 AccRel Nyati, 416 Rigby or 416 Ruger, 375Ruger or 338WM, 308 or 270, 243, 223" --  
Conserving creation, hunting the harvest.

capoward

29 January 2013, 20:58

Tanz,

We're just talking potential loading depths to take advantage of the cartridge design and magazine length.

The 'standard seating' of the 410/450gr BBW#13 bullets in the 12.7x68/49-10 results in 1-band above the case mouth, 2-bands within the case neck, and 1-band (the base band) below the case shoulder/neck junction; just like the current 450/500gr bullets. However the 3/1 banding configuration (distance between top-band and base-band) allows the bullets to be seated long which results in 2-bands exposed with 2-bands seated within the neck...basically the same 2-band neck tension...

Neither seating option leaves sufficient magazine length in a M70 or M98 (both 375 H&H magazine length) to use the current Ogive W Talon Tips. But the standard seating configuration does allow sufficient space to accommodate a production version of the prototype Rounded W Talon (with a drilled HP to assure breakup).

RIP loads the 430gr CEB MTH to 2663fps avg. in the 12.7x68 and due to the bullet shape/length. Not sure what fps he'll load the 450gr NF FPS 'cause I don't recollect his doing load development with it yet.

Anyway that's it. Final COAL will be decided by the accuracy of each seating depth and whether a production version of the Rounded W Talon Tip becomes available... At least that's my perception...

*Oops...almost forgot. We're strictly talking about DG options with the CEB BBW#13 FN and HP bullets here - though it'd be applicable with the NF CPS and FPS bullets as well. We already have the sleek 430gr CEB MTH bullet for long range shooting...though I wouldn't turn my nose up should an .500 caliber ER Raptor become available.*

Jim 🤖  
"Life's hard; it's harder if you're stupid"  
John Wayne

MikeD

31 January 2013, 08:03

Capoward or Michael:

Could you explain how the Talon Tipped DGBR-HP bullets are different than the DGBR-HP LEVER GUN bullets as referred to here in the following quote? Thanks.

quote:

I believe Michael has already demonstrated that Talon Tipped' DGBR-HP bullets outperform both the DGBR-HP LEVER GUN and ESP RAPTOR bullets in his bullet box - which makes perfect sense as both DGBR-HP LEVER GUN and ESP RAPTOR bullets are compromise bullets.

capoward

31 January 2013, 11:08

quote:

Originally posted by MikeD:  
Capoward or Michael:  
Could you explain how the Talon Tipped DGBR-HP bullets are different than the DGBR-HP LEVER GUN bullets as referred to here in the following quote? Thanks.

quote:

I believe Michael has already demonstrated that Talon Tipped' DGBR-HP bullets outperform both the DGBR-HP LEVER GUN and ESP RAPTOR bullets in his bullet box - which makes perfect sense as both DGBR-HP LEVER GUN and ESP RAPTOR bullets are compromise bullets.

Here you go in Michael's own words...

quote:

Originally posted by michael458: [Extracted from page 253 TBP thread]  
Let me clue you guys in a bit, a little history on the BBW#13 NonCons!

Originally, there was not going to be any NonCons except for the bigger bores. These bullets were designed Very Very Specifically FOR BUFFALO! From 416 to .510 caliber. There were not going to be any others. Once the BBW#13 Solids were perfected, with all the tweaks, adjustments, and improvements, the #13 NonCons were the "First Strike" Buffalo bullets. With absolutely no intentions of them going any further than that.

The damned things proved so successful in how they worked, trauma inflicted, penetration achieved they naturally migrated into what is now a Vast amount of bullets, in every caliber, Raptors, Lever Gun designed, short nose for tips in bolts, the tips themselves, and so on. We now have #13 NonCons from .224 caliber up to .620 caliber, in several configurations to meet that calibers and specific cartridges within that calibers needs. I have never and I don't think there ever has been such a vast array of bullets put together in this amount of time in history. You see the catalog--that is a lot of bullet design. A hell of a project! And, if you have paid attention to this thread, you have watched it every single step of the way, the ups, downs, failures, and the successes, all right here. Most questions answered, right here.

Once and awhile, now that I have a bit more time on my hands since terminals are not an everyday affair, then I answer a few more questions that comes to my mind.

One of these questions concerns this, "To Tip or Not".

There are obvious situations to adding the tip and it has EVERY ADVANTAGE and zero downside or compromise. Double Rifles #1 on that list. Shoot a double rifle with BBW#13 NonCons, put that tip in, it makes a world of difference at Impact Velocity, no matter what the range, 10 yds or 50 yds. Same with a Single shot rifle as well.

We run into tip issues with bolt guns, limited by magazine. Someone here is pretty damned smart! Since this bullet tech enhances all cartridges, we have carried over to the Lever Guns. Lever guns have to have the bands moved forward, and short noses, to run through the limited length actions available. This short nose, band forward design is conducive also to using that same bullet, seated deep for bolt gun cartridges, add the tip, and fits the magazine. Dual use bullets, lever gun or bolt gun. In this capacity the Big Bore Raptors are designed for this as well.

Compromise????

Yes, unfortunately sometimes there is a compromise, and we as shooters/hunters live with compromise in everything we do or choose. It is in some way, a compromise of some sort.

Big Bore Raptors! We all know, I don't care much for the big bore Raptors, and some of that is because of the B&M cartridges. Short and too much case capacity is removed with them by using a Raptor. Also by design, seating the BBW#13 Solid end down in the case, it tends to push powder to the side when compressed, not straight down like a flat base does. This action limits case capacity even more, as the case tends to bulge, and this causes chambering issues. Compromise? If you want the Raptor, then you will compromise a few more grains of Case Capacity because of the bulging issue.

Flat Base Lever Gun Bullets! These bullets also are seated deep by necessity to work through lever gun actions. They too take up case capacity, but with this bullet you can compress more powder because it compresses straight down, not to the side. Still, you can only do so much before running into those same bulging issues, or pressure issues, depending on the powder of course. This makes a dandy bullet to use as a deep seated NonCon for use with tips, and fit the magazines of bolts.

Standard BBW#13 with a Long Nose Projection! These have the bands more to the rear, longer nose projection from .600 to .700 out of the case. You increase Case Capacity greatly, reducing pressures and gain much more muzzle velocity. But, you cannot use this bullet tipped, and it still fit in the magazine, too long. One can take this bullet, add a tip, single load it up front and back it up with standard NonCons or solids in the magazine.

With these things in mind, my question was this;

What gives the highest "Impact Velocity" at 50 yards? Tipped Lever Gun Bullet, starting out at lower velocity, Standard NonCon starting out at much higher velocity, but no tip?????

Well, we just happen to have two bullets to do this with. Both .458 Caliber, both 295 grs, #13 NonCon for Lever Guns, and a long nose version designed for the 458 B&M Super Short.

I ran this test with two chronos, one up front, and one at 48 yards. Distance between the two Chronographs is 42 yards for those of you who want to run BC. I am not interested in BC on this test, I want to know what the Impact Velocity is, which of course is governed by BC.

I used a 458 B&M with 18 Inch barrel! To equal pressure the 295 #13 NonCon Lever Gun seated deep I can use 73/H-4198. The 295 #13 NonCon long nose, or SS bullet I can use 78/H-4198. Equal Pressure.

## 458 B&M



295 BBW#13 SS

295 BBW#13 SS Tip

295 BBW#13 LG Tip

Results!

Date	Bullet	Powder	Primer	High	Low	ES	Average	Comments
Data Current								
9/4/12								
295 BBW#13 HP LG--Short Nose seated deep for Tip use in the magazine								
9/4/12	295#13LG	73/H-4198	Fed 215	2619	2615	5	2616	Muzzle
9/4/12	295#13LG	73/H-4198	Fed 215	2490	2483	7	2486	48 Yd Impact Velocity
295 BBW#13 HP SS--Long Nose Projection For 458 B&M Super Short-Tip Not Fit in Magazine								
9/4/12	295#13 SS 78/H-4198	Fed 215	2718	2711	6	2714	Muzzle--NO TIP	
9/4/12	295#13 SS 78/H-4198	Fed 215	2426	2410	16	2420	48 Yd Impact--NO TIP	
9/4/12	295#13 SS 78/H-4198	Fed 215	2763	2756	6	2760	Muzzle--WITH TIP	
9/4/12	295#13 SS 78/H-4198	Fed 215	2628	2627	1	2628	48 Yd Impact--WITH TIP	

**Summary**

You see 3 different tests.

#1--295 Lever Gun seated deep, with tip. It starts out at a full 100 fps less than the 295 SS, but yet it arrives at target with a Impact Velocity of 66 fps MORE than the 295 SS with no tip!

While that may not seem like a big deal, it is in fact rather substantial.

Moving to the 295 SS bullet pay particular attention to the "starting Velocity" with the tip added to that bullet! 46 fps MORE with the tip, than without the tip! Reason? The chronograph is set up 6 yards in front of the muzzle, it seems to have gained velocity, true, but more Truthful, you have Lost Less Velocity at 6 yards, 46 fps! In many cases, that's 2 grs of powder, and increased pressure, and this is for "Free". LOL... At a full 48 yards with increased velocity up front, you hit at 48 at 2628 fps, a full 142 fps faster than the 295 LG Tipped, but having to start out at lower velocity because of the seating depth.

Are you beginning to see some of the compromises one must choose to make?

I hate compromise! But in some cases, there is no choice, and every choice is a compromise, regardless of which choice you make!

That's it for me today! At least anything that could possibly be considered of any consequence anyway!



Michael

Extracted from page 160 TBP thread]



Extracted from page 154 TBP thread]



Unfortunately I could not identify the 295gr LG bullet being fired from the 50 B&M nor identify either bullet fired into the bullet box with Talon Tips for comparison – perhaps Michael can provide the photographic evidence if it is available.

Jim 🍷  
*"Life's hard; it's harder if you're stupid"*  
 John Wayne

**Cross L** **01 February 2013, 04:29**

michael

I am ready to load those short 250 gr NoN cons for the 458 SS

Need a load or two to try.

**MikeD** **01 February 2013, 05:03**

Capoward:  
 Thank you for your expansive explanation of the various BB#13 bullets. Tremendous amount of information in your post and throughout this entire thread. Regards.

**capoward** **01 February 2013, 05:15**

You're welcome Mike. We are all especially indebted to Michael and Sam as well as Dan and others for the wealth of information in this thread.

Jim 🍷  
*"Life's hard; it's harder if you're stupid"*  
 John Wayne

**michael458** **01 February 2013, 15:25**

Gees Jim, leave it to you to know where everything is on this thread, thanks, obviously most of us would be lost without your "Library" skills!

CrossL,

250 NonCon in the 458 SS---55/Lilgun pushed it safely to 2712 fps, I have been loading 54/Lilgun for 2623 fps, more than enough. Wicked bullet. In fact, if I go anywhere this year and shoot any plains game I am using that bullet in the 458 B&M at a full 2850 fps in one of my 18 inch guns. Perfect bullet also for anything in NA--Moose, bear, anything.

Will soon be working with a 225 gr version in 416, but just can't get the time to get to it, maybe next week when Sam is down for the 2cd phase of the OSR tests we can do some terminals and load data on that in the 416 B&M as well. Should be just as wicked, and perfect near everything bullet.

I am far behind on uploaded new data to the B&M site as well, I hope to get to that this morning.

Michael

<http://www.b-mriflesandcartridges.com/default.html>

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 Live Outside The Box of "Conventional Wisdom"

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**michael458** **01 February 2013, 15:27**

MikeD--You have that long barreled 50 B&M AK--Correct?  
 M

<http://www.b-mriflesandcartridges.com/default.html>

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**MikeD** **02 February 2013, 02:02**

Michael:  
 Yes, I have the 25 inch 50 B/M Alaskan. I have slowly been developing loads and chronographing your loads through the 25 inch barrel. I wanted to get a little more info before I sent you a comprehensive report. A few observations:

- 1) I can get 2050 FPS with your load data using the Hornady 500 grain flatpoint. Recoil was sort of on the order of a 338 Win Mag-375 H/H. Definately obvious and a little snappy.
- 2) Using your load data for the BB13 Lever Action 365 grain hollow point I am getting over 2200 FPS. Recoil is considerably less than the 500 Hornady.
- 3) I have shot one whitetail deer with the 365 grain bullet described above. This was a very slightly quartering away lung shot. This average sized deer was literally smacked down so fast that its' legs were still running/sprinting as the deer layed on it's side. It was as though the animal was literally thrown to the ground. I didn't get to do a post mortem carcass

review but there were at least two petal wounds on the exit side of the animal. Fellow hunting with me said he hadn't seen an animal dropped like that in a long time. Heck, I haven't, either. The guy inspected a loaded 50 B/M AK cartridge for quite awhile. I could tell he couldn't quite figure out what he was looking at. Of course, the cartridge has that .50 caliber bullet, but, really the whole package doesn't look that imposing due to its shorter profile(He typically shoots a 300 Win Mag.). His problem; how did this 45-70 thing just explode a 150 pound animal off its feet?

Will follow with more after one more chronograph session.

Regards, Mike D.

**capoward**

**02 February 2013, 03:02**

Ah the 50 B&M - my all time favorite...followed closely by the 416 B&M...

Interesting thing about the 50 B&M Alaskan - it has slightly more powder capacity than the 50 B&M SA but the SA has a 65K psi PMap so its performance with the same bullet is definitely a step up...

Jim 

"Life's hard; it's harder if you're stupid"  
John Wayne

**michael458**

**02 February 2013, 16:23**

MikeD

As I also recall your rifle was a M71 also??? I can get a little more out of the M71s than the Marlins, as much as 50-100 fps without issue. In one of my M71s I was getting 1950 with the 500 Hornady, all mine are 18 inch guns. This load was too much in the Marlins, and would make for stiff opening. About as much as one wants to push the Marlin is 1850 fps with 18 inches. Getting 2050 fps is serious with a 500!

For comparison, Layne Simpsons 50 B&M Alaskan is 22 inches. There was little gain with the 22 inches over 18 inches until we used RL 10X, which gave Layne 100 fps gain with the extra 4 inches in the same load. H-322 gave zero gain in 4 inches, RL 7 gave Layne 70 fps, H-4198 gave only 13 fps gain in 4 inches. So it would seem that RL 10X gave the best results with extra barrel length!

As for the 365 #13 NonCon, this is the bullet I chose for Org in his Marlin that is Now in South Africa. Man did this bullet shoot in his rifle, all day long 3 in a hole. His is 18 inches, and I was getting a steady 2165 fps with it and the 375 #13 Solid. Those two are not matching, but shot extremely well together in his rifle. The matching 335 NonCon ran 2265 fps in his 18 inch gun. I am quite sure Org is going to push the limits on the cartridge with some of the things he will shoot!!!!

The 365#13 NonCon at 2200 fps is for sure wicked, no deer can carry that, two blades exiting, not a surprise there! Your friends reaction is very typical--- "I never Seen anything Like that!"---Common statement with all of us that see the NonCons in the field! LOL.....

I love the 50 B&M Alaskan. Man never needs for any other lever gun as long as he lives. Unfortunately for me, I have been dragging my feet with getting one in the field, there always seems to be a priority with me and the bolt guns, cartridges, and bullets! One day.....

I really like the cartridge in a single shot rifle too! I am very anxiously awaiting the arrival of two single shot 50 B&M Alaskans. One 20 inch Ruger #1 that was at one time one of those 50th Anniversary #1s from 1999 in 45/70. And one 22 inch Winchester 1885, that as I recall was one of the NRA Gun Of the Year rifles in 45/70 some time ago. I can't wait to start playing with those. And of course, pushing the limits of the cartridge in those will be interesting.

Do keep us posted on your developments, and I really would like to get my hands on your data as well!!!!

Jim

quote:

Interesting thing about the 50 B&M Alaskan - it has slightly more powder capacity than the 50 B&M SA but the SA has a 65K psi PMap so its performance with the same bullet is definitely a step up...

Correct, limitations of the Platform in which the 50 B&M AK calls home! I will find out the limitations of the cartridge in that Ruger #1 and the Win 1885. I suspect I will find that powder capacity will then become the limiting factor???

Michael

<http://www.b-mriflesandcartridges.com/default.html>

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